

# **KUMASI TECHNICAL UNIVERSITY**



## **PUBLICATIONS AND RESEARCH ETHICS POLICY**

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## **1.0 Introduction**

The pursuit of research for the benefit of society and the publication of research findings are the core mandates of Kumasi Technical University as spelt out in the Technical University Act 2016 (Act 922). In fulfilment of this mandate and to promote quality research in Kumasi Technical University, it is imperative that the requisite framework be established. The Research Ethics and Publications Policy document is one such framework that provides the requisite environment for the attainment of the broader goals of the University. The document seeks to attain four goals, namely to:

- i. provide guidelines for responsible conduct of research in Kumasi Technical University;
- ii. educate all University staff and others engaged in research and publication at the University to ensure a high ethical standard;
- iii. ensure that publications contribute to enhance the reputation of the University as a provider of authoritative and impartial data, information and knowledge; and,
- iv. provide a yardstick to monitor and measure the performance of researchers in the University.

This document has been developed to provide staff of the University and all those engaged in research at the University with broad ethical statements to guide their professional lives and to identify relevant ethical considerations when ethical uncertainties arise. It provides newcomers to the enterprise of research a platform for learning ethical principles and standards that should guide their work. It is anticipated that abiding by the tenets of this document, researchers will conduct their research and publication activities in a manner that upholds the integrity and image of the University.

Further, it will enable the staff of the University to be abreast with the standards of the international research community. It seeks to foster research activities in the University in a manner that protects individuals engaged in research and publication, the environment and the safety of the wider community.

The document takes into consideration the diverse academic groupings and the varied backgrounds of the many individuals engaged in research in the University. It also acknowledges that the different professional groupings to which staff of the University belong to have ethical codes that guide the practice of their professions. Nonetheless, it is recognized that there are common ethical grounds that are independent of specific professions. The provisions of this document will serve the practice of all professionals engaged in research in the University.

The University expects its staff to observe the standards of research practice set out in the guidelines published by the learned societies in their disciplines and by other relevant professional and regulatory bodies. Accordingly, all researchers in the University are expected to take steps to stay informed of governmental, institutional and any other relevant regulations, standards or policies in proposing, conducting and reporting research.

It is acknowledged that the provisions in this document cannot in themselves guarantee ethical behavior or resolve anticipated ethical disputes. The document merely sets forth standards to which professionals aspire to and against which their actions can be measured. Ethical behavior should result from a personal commitment to engage in ethical practice and an attempt to act always in a manner that assures integrity. The researcher is viewed as the “guardian of truth” or the “conscience” of the institution. This is an extra burden for the institution’s researchers, and this



document provides some guidance to practitioners who bear that burden.

A fundamental premise of this document is that published research can benefit human society. In order to maximize the benefits of research, researchers must have academic freedom. With academic freedom comes responsibility, including the responsibility to ensure that all researches undertaken meet high scientific and ethical standards that respect and protect the interest of society and all concerned. Thus, commitment of researchers towards advancement of knowledge also implies duties of honest and thoughtful inquiry, rigorous analysis, commitment to the dissemination of research results, and adherence to the use of professional standards.

This document is set out in six (6) sections. Section One spells out the broader principles of research ethics. Section Two deals with the practical ethical challenges that researchers are bound to encounter. The document further addresses how those challenges can be handled. Section Three focuses on the conduct of research involving humans, animals as well as guidelines on how to safeguard the environment in the course of undertaking research. Section Four deals with general ethical matters relating to research and publication, while Section Five establishes a mechanism for ensuring that the guidelines set out in this document are implemented effectively. Finally, Section Six deals with sourcing funding and modalities for accessing it towards quality research and publication.

## **Section One**

### **1.0 Research Ethics Principles**

The research ethics principles are the moral values that all researchers are expected to know and be guided by in the pursuit of research activities. These values are:

### **i. Honesty**

Researchers are required to strive to be honest in all their scientific communications. They should honestly report data, results, methods and procedures as well as publication status. Researchers should not fabricate, falsify, or misrepresent data. They should also not deceive their colleagues, granting agencies or the public.

### **ii. Objectivity**

Researchers should strive to avoid biases in experimental design, data analysis, data interpretation, peer review, decisions relating to personnel, grant writing, expert testimony, and other aspects of research where objectivity is expected or required. Researchers should avoid or minimize bias or self-deception and disclose personal or financial interests that may affect their research activities. Research problems should be identified instead of being anticipated.

### **iii. Integrity**

Researchers are required to keep their promises and agreements; act with sincerity; and also, strive for consistency of thought and action. Research should be conducted in such a way as to ensure the integrity of the research enterprise and not to diminish the potential for conducting research in the future.

### **iv. Carefulness**

Researchers should avoid errors and negligence; act carefully and critically examine their own works and that of their peers. Keep good records of research activities, such as data collection tools, data, research designs, and official correspondence with agencies or journals.

## **v. Openness**

Researchers should foster a climate of mutual trust and openness to encourage the free exchange of ideas to enable each member of the research community to reach their highest potential.

## **vi. Respect for Intellectual Property**

They should honour patents, copyrights, and other forms of intellectual property rights. They should not use unpublished data, methods, or results without permission; and also give credit where credit is due. Researchers should provide proper acknowledgement or credit for all contributions to research; and should never plagiarize.

## **vii. Confidentiality**

Researchers are required to protect confidential communications, such as papers or grants submitted for publication, personnel records, trade or military secrets, and patient records.

## **viii. Responsible Publication**

Researchers are required to publish in order to advance research and scholarship, but not to advance just their own career. They are also enjoined to avoid wasteful and duplicative publication.

## **ix. Responsible Mentoring**

It is required of researchers to help to educate, mentor, and advise students. Researchers should promote the welfare of students and allow them to make their own decisions.

## **x. Respect for Colleagues**

Researchers are expected to respect their colleagues and treat each other fairly.

## **xi. Responsibility**

Researchers should strive to promote social good and prevent or mitigate social harms through their research activities, public education, and advocacy.

## **xii. Non-Discrimination**

In order to promote social wellbeing and advancement of research as a vocation, practitioners should desist from discrimination against colleagues or students on the basis of sex, race, religion, ethnicity, or other factors that are not related to their scientific competence and integrity. They should act in a manner that promotes excellence and should also reward merit.

## **xiii. Competence**

To ensure promotion of competence in science as a whole, persons engaged in research should take steps toward improvement in their own professional competence and expertise through life – long education and learning. In addition, research personnel should have competence to use the procedures employed in a particular project.

## **xiv. Legality**

Researchers are expected to know and obey all relevant laws as well as institutional and governmental policies pertaining to their field of endeavors.

## **xv. Animal Care**

Scientists working in areas that require the use of animals should show proper respect and care for animals when using them in research. They should not conduct unnecessary or poorly designed animal experiments.

## **xvi. Human Subjects Protection**

In the course of conducting research on human subjects, researchers should as much as possible minimize harms or risks and maximize benefits; respect human dignity, privacy and autonomy; take special precautions with vulnerable population; and strive to distribute the benefits and burdens of research fairly.

## **xvii. Scientific Judgment**

Investigators should use their best scientific judgment for the selection of issues for empirical investigation.

## **xviii. Safety**

Where chemicals (i.e. drugs) or equipment are involved, competent personnel and adequate facilities should be made available and it should be mandatory for all those involved to undergo training to ensure safety.

## **xix. Accessibility**

Researchers should officially seek for access to enable them gain entry into the respondents' institution. For example, an official correspondence from the University to a particular institution (such as Bank of Ghana [BOG])

## **xx. Collaboration**

Where necessary, researchers should partner other researchers from specialised institutions (such as CSIR) to conduct their researches. Researchers from different departments and faculties within the University should partner and conduct research.

## **xxi. Authenticity**

Findings of research should be published in reputable journals to give them credibility.

## **Section Two**

### **2.0 Practical Ethical Issues**

These involve issues or challenges that confront a researcher when undertaking research and which raise ethical problems when not dealt with appropriately. These include:

#### **2.1 Finance**

All research activities involve money and require sound financial management. It is therefore expected that all researchers uphold the highest standards of financial integrity and transparency when dealing with financial, budget-related and contractual aspects of research. The Stores and Financial Regulations Manual of Kumasi Technical University should be consulted for guidance when undertaking funded-research.

#### **2.2 Conflict of Interest**

A conflict of interest occurs when professional judgment regarding a specific interest is unduly influenced by another interest e.g. when a research undertaken is influenced by financial gain or gain in personal status. Conflicts of interest are an inherent and unavoidable part of the academic research environment. One way to deal with the problem is through disclosure and transparency.

## **2.2.1 Researcher Conflict of Interest**

Researcher conflicts of interest are of particular importance when an unacknowledged or undisclosed interest, financial or otherwise, negatively affects the well-being of human research participants, or the results of the research. In particular, researchers should be aware of, and where appropriate, disclose the following potential conflict of interest areas:

- i. equity or stock holding in a sponsor company;
- ii. proprietary interests in product-patent holding, intellectual property rights, trademark, and licensing agreements;
- iii. grants paid speaking arrangements, retainers for on-going consultations, sitting on “Pharmaceutical Advisory Boards” etc.;
- iv. travel and conference sponsorship;
- v. recruitment fees or other personal payments that are linked to study outcome, in anyway;
- vi. co-authorship of articles, where the co-authors’ input has been minimal;
- vii. funding by a sponsor for additional staff and facilities, especially if not directly linked to the research project;
- viii. equipment for use in a study that will then belong to the department;
- ix. donation of equipment unrelated to study; and
- x. contributing to a departmental research budget.

## 2.2.2 Research Ethics Committee

Research Ethics Committee(REC) members are expected to make decisions and conduct their oversight responsibilities in an independent and impartial manner, free from bias and undue influence. Members (and members of their immediate families) may be involved in activities that could, on occasion, be perceived as conflicting with this responsibility. The integrity of the scientific and ethical review process can be compromised if such conflicts of interest are not disclosed and where necessary, avoided. Committee members must disclose any relationship, interest or other circumstances, which could reasonably be perceived as creating conflict of interest, including the following:

- i. *Personal Relationships:*** A member has contact at personal level with the principal researcher or key personnel of a research protocol under review by the REC.
- ii. *Relationship to the research study:*** A member (his/her spouse or immediate family member) is the principal researcher or co-researcher of the research protocol under review.
- iii. *Business relationship or Affiliation:*** A member serves as a trustee, director, officer, owner or partner of a for-profit entity that could be affected by the outcome of the research protocol under review.
- iv. *Financial Interest:*** A member has a financial interest that could be affected by the outcome of the research protocol under review. Included in the definition of financial interest are equity interests e.g. stock, stock options or other ownership interests, payment or expectation of payment derived from intellectual property rights (e.g. patent royalties) and payments received from a for-profit entity for consulting or other services.



## **2.3 Intellectual Property**

The commercialization of the University's knowledge base and technology transfer are regarded as an integral part of the University's responsibility to the broader community. The University is committed to encouraging research and development which may lead to inventions, products or business ideas that can be exploited commercially and to unlock the value of its knowledge base to the benefit of both inventors and the broader community.

Researchers should familiarize themselves with the University's policy in respect of Exploitation of Intellectual Property and ensure that all research-related activities that may give rise to issues surrounding intellectual property are in compliance with this policy. The professional experts at the University may assist researchers in this regard.

## **2.4 Research Collaboration**

The University shall support and encourage collaborative research. It is the responsibility of researchers to ensure that a clear understanding of respective roles and responsibilities is established at the beginning of the research collaboration. Research collaborators should establish as early as possible, how authorship and the allocation of copyright are to be divided between them.

Where disputes between co-researchers arise, they should be resolved amicably and in a respectful and collegial fashion. Where a dispute cannot be resolved by the parties themselves, the parties should seek the advice of the appropriate senior colleagues or authorities. The University has a duty to investigate disputes between research collaborators, via REC, and to help facilitate their resolution. However, the University has no obligation to ensure that disputes

are resolved, since the resolution of disputes is ultimately subject to the will of the parties to the dispute.

The researcher collaboration may be in any of the following forms:

### **2.4.1 Mentorship**

Mentors should ensure that the research relationship or project begins with a clear understanding of mutual responsibilities, a commitment to maintain a supportive research environment, proper supervision and review as well as an understanding that the main purpose of the relationship is to prepare trainees to become successful researchers.

Junior researchers in turn have a responsibility to complete assigned work conscientiously, respect the authority of others working in the research setting, follow research regulations and protocols and abide by agreements established for authorship and ownership. Mentors or supervisors should apply the principles of authorship described below to publications of research, where a student has made a significant contribution. If the bulk of the work, including the innovative and development aspects, has been completed by the student, then the student should be considered for first authorship. In all instances where a publication is made based on a student's thesis, the student should be included as an author of the said publication.

### **2.4.2 Authorship**

Researchers are expected to make a reasonable effort to publish the results of their research in peer reviewed journals of international standing. The following principles apply to authorship:

- i. Authorship credit should be based on substantial contributions to conception and design, or acquisition of data, or analysis

and interpretation of data; drafting the article or revising it critically for important intellectual content; and final approval of the version to be published. Authors should meet all the above conditions.

- ii. Acquisition of funding, collection of data, or general supervision of the research group alone, does not justify authorship;
- iii. An administrative relationship to the investigation does not in itself qualify a person for co-authorship;
- iv. The order of the names in a publication should be decided according to the quality of the contribution, the extent of the responsibility and accountability for the results, and the custom of the discipline;
- v. The attribution of authorship is not affected by whether researchers were paid for their contributions or by their employment status;
- vi. An author who submits a manuscript for publication accepts the responsibility of having included as co-authors only all persons who are entitled to co-authorship, and none who is inappropriate. Any author found to have assigned authorship to a person without any clear contribution shall be penalized;
- vii. The submitting author should send each co-author a draft copy of the manuscript and should make a reasonable attempt to obtain consent to co-authorship, including the order of names; and other contributors should be indicated in a footnote or an "Acknowledgement" section, in accordance with the standards of the discipline and the publisher.

## **Consistency of Address**

It is important that Kumasi Technical University takes steps to maximise the impact of its publications in bibliometric analysis by ensuring that all research outputs are accurately recognised as products of the staff of Kumasi Technical University. This is to make it relatively easier for identification and retrieval from bibliometric databases. In view of this, management should insist that staff when submitting their works for publication(s) use their department/unit; faculty/school/institute/Centre in addition to Kumasi Technical University as their address. For example:

*Forkuoh, D. A.*

*Department of Management Studies*

*Faculty of Business and Management Studies*

*Kumasi Technical University*

Upon the coming into force of this policy, Kumasi Technical University shall not recognize any publication of staff that does not bear Kumasi Technical University as author's institution of affiliation for assessment for promotion. Exception shall however, be granted for staff on secondment, sabbatical leave or had already made publication prior to joining the University.

### **2.4.3 Partnership**

Form of collaboration where the University partners another institution that is providing;

- i. Funding for the research
- ii. Data for the research

- iii. Personnel for the research
- iv. Requisite facilities such as laboratories for the research

## **2.5 Scientific Misconduct in Research and Publications**

Researchers are expected to maintain the highest standards of honesty and integrity. Researchers must at all times function within the existing research paradigm and ethically acceptable methodological framework. The University undertakes to thoroughly investigate all allegations of research misconduct and act appropriately, according to the outcomes of such investigations.

Complaints regarding the conduct of any researcher should preferably be made in writing and to the Chairperson of the Research Ethics Committee and copied to the Head of Department. The complaint will be investigated by the REC as deemed appropriate. Minor issues will be discussed, and resolved at Committee level. More serious issues will be referred to the Academic Board for further investigation and action. Standard University disciplinary procedures will be followed, if appropriate. Any matter of alleged research misconduct, initially investigated at departmental or faculty level, should be referred to REC if the matter could potentially present any form of risk to the University.

What constitutes a minor or a serious ethical issue depends on the extent of damage of an ethical breach on the University or others. The REC, in consonance with the Statutes of the University, will decide whether the breach is a minor or a serious one.

Any form of academic dishonesty, including but not limited to the following, will be regarded as a serious offence.

- i. Plagiarism:** The use of other person's ideas, processes, results or words without giving appropriate credit. Upon the demonstration that a researcher has represented another person's work as his or her own, it shall be presumed that the researcher did so knowingly; the researcher shall bear the burden of rebutting the presumption by evidence satisfying the person or body hearing the case that no such knowledge existed.
- ii. Fabrication:** is making up data and results and recording or reporting them.
- iii. Falsification:** manipulating research materials, equipment or processes or changing or omitting results, such that the research is not accurately represented in the research record.
- iv. Violation of ethical norms and regulations for research involving human subjects or animals.
- v. Violation of safety norms, practices and regulations for research involving environmental hazards.
- vi. Misuse of research funds.
- vii. Not declaring a personal or financial conflict of interest.

## 2.6 Data Acquisition and Management

Data management, in respect of this research ethics policy document, refers to three issues:

- i. The ethical and truthful collection of reliable data. This refers to collecting data in a way that does not harm or injure someone. Truthful data collection refers to data that,

once collected, are not manipulated or altered in any way that might impact or falsely influence results

- ii. the ownership and responsibility of collected data; and,
- iii. retaining data and sharing access to collected data with colleagues and the public.

Each issue contributes to the integrity of research and cannot be easily overlooked by researchers.

In order for the researchers to address all data management issues in a timely manner, they must decide among others;

- i. the person in charge of data;
- ii. methodology for data collection;
- iii. methods for storage of data;
- iv. the person responsible for ensuring that no data are excluded from the final results and also ensuring the accuracy of the results; and
- v. time frame for data storage especially after project has terminated.

### **2.6.1 Use of data**

The University may share and allow the use of her data for the following:

- i. Reinforcing open scientific inquiry;
- ii. Encouraging diversity of analysis and opinion;
- iii. Promoting new research;

- iv. Testing of new or alternative hypotheses and methods of analysis;
- v. Supporting studies on data collection methods and measurement;
- vi. Facilitating training of new researchers;
- vii. Enabling the exploration of topics not envisioned by the initial investigators, and
- viii. Permitting the creation of new data sets by combining data from multiple sources.

## **2.6.2 Intellectual Property**

The University shall use all applicable laws to protect its Intellectual properties. Intellectual property may be defined as follows:

- i. Any invention, discovery, improvement, copyrightable work, integrated circuit mask work, trademark, trade secret, and licensable know-how and related rights.
- ii. Intellectual property includes, but is not limited to, individual or multimedia works of art or music, records of confidential information generated or maintained by the University, data, texts, instructional materials, tests, bibliographies, research findings, organisms, cells, viruses, DNA sequences, other biological materials, probes, crystallographic coordinates, plant lines, chemical compounds, and theses.
- iii. Intellectual property may exist in a written or electronic form, may be raw or derived, and in the form of text, multimedia, computer programs, spreadsheets, formatted fields in records or forms within files, databases, graphics, digital images, video and audio recordings, live video or audio



broadcasts, performances, two or three-dimensional works of art, musical compositions, executions of processes, film, film strips, slides, charts, transparencies, other visual/aural aids or CD-ROMS.

### 2.6.3 Confidentiality of data

- i. **Storage and Security:*** The researcher shall organize, store, maintain, analyze, transfer and/or dispose of data under his/her control in such a manner as to reasonably prevent loss, unauthorized access, or divulgence of confidential information.
- ii. **Release of Confidential Information:*** The researcher shall permit no release of information about individual persons that has been guaranteed as confidential, to any person inside or outside the institution except in those circumstances in which not to do so would result in clear danger to the subject of the confidential material or to others; or unless directed by competent authority in conformity with a decision of a competent Court of Law.
- iii. **Balancing Privacy Risks Against Benefits:*** The researcher shall, at the design stage of any project, thoroughly explore the degree of invasion of privacy and the risks of breach of confidentiality that are involved in the research project, weigh them against potential benefits, and make there from a recommendation as to whether the assignment should be executed, and under what conditions.
- iv. **Disclosure of Rights:*** The researcher shall ensure that all subjects are informed of their right of refusal and of the degree of confidentiality with which the material that they provide will be handled, including where appropriate, the

implications of any freedom of information statute. Any limit to confidentiality should be made clear.

- v. **Appraisal of Implications:** The researcher shall apprise the REC of the implications prior to data collection and ensure that it is binding.

## 2.7 Supervision of Research Students

The supervision of research students must be carried out as described in the appropriate Regulations and associated guidelines as set out in the University's Statutes.

- i. It is expected that supervisors of research students will supervise all stages of the research process, including outlining or drawing up a hypothesis, protocol design, data recording, data analysis, preparation of manuscripts for submission and publication, reading drafts of chapters and commenting on these in detail both in writing and verbally and the presentation of research output.
- ii. Experienced members of staff must ensure that those who are less experienced have an opportunity to gain supervisory practice and that their contribution to supervision is formally acknowledged.
- iii. Where there is a conflict of interest between a student and his/her supervisor, the supervisor shall declare such and a different supervisor given.
- iv. Supervisors of research students are expected to undertake training appropriate to their role.
- v. Where an individual's record of supervision is poor or where his or her students have regularly failed to submit or complete

their projects, the University shall bar that individual from further supervision for three academic years.

- vi. Research students must provide their supervisors with all files of raw data, appropriately labelled, before submission of the thesis.
- vii. Lecturers are to be jointly responsible for all decisions made by students (under their supervision) in relation to ethical issues involved in research. They are therefore, required to advise and vet the research instruments or activities of their students to ensure sanity and avoid bringing the name of the University into disrepute and public ridicule.
- viii. For the purposes of quality assurance, supervisors are to regularly meet their project students. For the avoidance of doubt, no supervisor shall superintend over a maximum of twenty (20) project students.

## **Section Three**

### **3.0 Research Involving Humans, Animals, Environment And Bio-Safety**

#### **3.1 Research Involving Humans**

The purpose of this section of the policy document is to promote and facilitate the conduct of human subject research in a manner consistent with the highest scholarly and ethical standards.

To this end, Kumasi Technical University is committed to the following guiding ethical principles: respect for human dignity; respect for free and informed consent; respect for vulnerable persons, respect for privacy and confidentiality; respect for justice

and inclusiveness as well as minimizing harm and maximizing benefit.

In keeping with the foregoing tenets, it is required that:

- i. All research projects involving the use of human subjects conducted at or under the auspices of Kumasi Technical University require ethical review and approval by the REC before the research may begin, so that a formal evaluation of the potential harm/benefit equation can be undertaken;
- ii. The decision to conduct research with human subjects should involve evaluation of the potential benefits of the participants and their society in relation to the risks to be borne by the participants. This calls for risk – benefit analysis to be conducted in order to assess the situation; and the REC shall only approve the study on the basis of the assessment report;
- iii. Any study which involves human subjects must be related to a very important intellectual question with humanitarian implications, and there should be no other way to resolve the intellectual question;
- iv. A study involving risks as well as potential therapeutic effects must be justified in terms of its benefits to the client or patient; and
- v. Under no circumstance, should approval be granted by REC for the conduct of research when there is prior reason to believe that it could have major permanent negative effects on participants.

### **3.1.1 Informed consent**

- i. Participation in research is fundamentally a voluntary activity. In view of this, participants should be informed and allowed to exercise their choices or rights regarding participation.
- ii. Informed consent should be used in obtaining participants in all research. The investigator or his/her agent should honour all commitments associated with such agreements. This is extremely important in studies where there is a potential threat to the participants (where it is ambiguous or potentially hazardous).
- iii. The participant should be in a position to give informed consent; otherwise it should be provided by those responsible for the participant.
- iv. Informed consent should be written and read or translated into a language well understood by the participants.
- v. Researchers should write formally and seek permission to use any official data or information.
- vi. Participants should be aware that they have the right to terminate their participation at any point.
- vii. The researcher must respect the participant's right to decline further participation at anytime.

### **3.1.2 Voluntary consent**

The following must be followed to promote voluntary consent:

- i. No coercion, explicit or covert should be employed in getting people to participate in research.

- ii. The dignity, privacy and interest of individuals should be respected and protected when participating in a study.
- iii. The welfare of research participants should be of priority concern above all other considerations to the researcher.
- iv. Research should be terminated, if danger to participate arises.

### **3.1.3 Provision of information**

No relevant information must be kept from participants. The researcher should provide participants with the following information:

- i. The researcher should indicate the purposes, procedures, and risks if any involved in research (including hazards to physical and psychological well-being and threat to social position); these should be explained to the participants;
- ii. The researcher should discuss with participants the possible consequences of their group or society from which they are selected ahead of their decision to participate;
- iii. The procedure employed to obtain the sample should be explained to the participant(s).
- iv. The identity of those conducting the study (client and research body) should be made available to the participants;
- v. Participants should be aware of the data gathering techniques (tape, video, photography, etc.), and the extent to which they will remain anonymous and data confidentiality;
- vi. If the project has long duration, participants should be informed periodically on the progress of the work in order to sustain their interest; and

- vii. In the case of video or audio recording, participants have the right to view its content and approve it before it can be made public.

### **3.1.4 Confidentiality and Anonymity**

As part of improving confidentiality and anonymity, researchers must ensure that:

- i. Research data are confidential and participants should remain anonymous unless they (or their legal guardians) have given their permission for release of their identity;
- ii. If anonymity or confidentiality cannot be guaranteed, the participants should be aware of this and its possible implications prior to their involvement in that research;
- iii. Studies designed to provide description of aggregates or groups should always guarantee anonymity to individual respondents;
- iv. Privacy is considered from the perspective of the participants or their culture;
- v. Material stored in a database should not be used without the consent of the investigator(s) or institution(s) that originally gathered them

### **3.2 Research Involving Animals**

There should be ethics in research involving animals. The term "Animals" refers to all animals having the power of sense perception or sensation. Researcher(s) should be guided by the following:

- i. The use of animals in scientific research can only be justified, if the benefits to both humans and animals outweigh the

- potential harm to the animal subjects involved in a particular study;
- ii. All research activities regarding animals should require approval from REC prior to commencement, so that a formal evaluation of the potential harm – benefit equation can be undertaken;
  - iii. All research involving animals conducted within the University should uphold the “Three R” principles for humane animal research, namely;
    - (a) Replacement of so-called “sentient” animals wherever possible, with “non-sentient” research models or systems in order to eliminate the use of animals that can experience unpleasant sensations.
    - (b) Reduction of the numbers of animals in experiments by designing strategies that facilitate use of the smallest number that will allow valid data to be obtained from the study.
    - (c) Refinement of animal sourcing, animal care practices and experimental procedures to eliminate physical and psychological distress within limitation imposed by the objectives of the research. The likely adverse effects are to be kept at minimal level.
  - iv. Details of all animals to be involved in any research program to be conducted must be submitted to the REC for review and approval;
  - v. Researchers are required to seek clarification from professional and regulatory bodies when they are in doubt about any matter relating to research involving animals; and REC also has a mandate and a responsibility to oversee and monitor



the care and use of all laboratory and other animals kept for research purposes in, or under the University.

### **3.3 Environment and Bio-Safety**

Researchers should be guided by the following:

- i. Utmost care should be taken to ensure that all research projects are undertaken with the necessary respect for the impact that it could have on the physical, biological and spatial environment;
- ii. All researchers undertaking investigation relating to bio-hazardous material that could potentially cause harm to humans, animals or the environment or the researcher and supporting staff must familiarise themselves with appropriate bio-safety and containment procedures;
- iii. All research activities involving genetically modified organisms or research that poses a risk to the natural environment or the researcher and supporting staff, must not be approved unless adequate contingency measures are put in place. This includes the following;
  - (a) research involving organisms that are pathogenic to humans and/or animals
  - (b) research involving radiation, and
  - (c) research which may potentially cause harm to the natural environment.
- iv. Bio-hazardous research involving humans or animals should be referred to other regulatory bodies responsible for environmental protection, certifying food and drugs, standards, etc.;

- v. The researcher is ultimately responsible for applying for ethics approval for a given project and should make this decision after discussion with peers, his or her Head of Department and Dean. The outcome of such consultations should be in writing.

## **Section Four**

### **4.0 General Ethical Issues**

- i. All actions conducted as part of the research by either staff or students of Kumasi Technical University should be consistent with the ethical standards prescribed in this document and any other applicable in the field of study.
- ii. Ethical issues should be considered from the perspective of the research participants and their community.
- iii. The scientist(s) researcher(s) in charge of research project is (are) responsible for all decisions regarding procedural matters and ethical issues related to the project whether made by themselves or subordinates.
- iv. In the cases where unresolved or difficult ethical dilemmas arise, assistance or consultation should be sought with appropriate committee(s) within the University and or professional / regulatory bodies in the country.
- v. Any deviation from established principles suggests that a greater degree of responsibility is being accepted by the investigator.
- vi. All external personnel and entities seeking to do research in Kumasi Technical University or seeking to use the facilities

or students of the University to engage in research must first obtain ethical clearance from the REC of the University.

## **4.1 Dissemination of Research Output and Institutional Affiliation**

### **4.1.1 Dissemination of Research Output**

- i. Research findings should be made available to the University community.
- ii. All reports of research projects sponsored by the University or its affiliates should be public documents, freely available to all within the University community.
- iii. Research procedures should be described fully and accurately in reports, including all evidence regardless of the support it provides for the research hypotheses; conclusions should be objective and unbiased.
- iv. Sponsorship, purpose, sources of financial support towards any research should be made clear in all publications.
- v. Permission should be sought from clients for consultancies, if the researcher intends to use the data collected to write articles for publication.
- vi. As much as possible, there should be institutional arrangement for the use of client's data for publication as part of efforts to advance knowledge. For the avoidance of doubt, it should be incorporated in agreements or formal written request be made, and this should be duly acknowledged.

- vii. If publications may jeopardize or damage the population studied and complete disguise is impossible, publications should be stopped.
- iv. Appropriate credit should be given to all parties or persons contributing to the research in order to ensure respect for intellectual property rights of researchers and institutions.
- v. Full and accurate disclosure of all published sources bearing on or contributing to the work should be stated.

#### **4.1.2 Institutional Affiliation**

- i. The findings of all research projects undertaken by members of staff of Kumasi Technical University are expected to be disseminated as public documents. All research projects funded by Kumasi Technical University presented at workshops, conferences or seminars locally or internationally should reference Kumasi Technical University as the researcher's institutional affiliation. Among other things, this is to facilitate advancement of knowledge.
- ii. Where the University has provided support, administered funds or has been used as the institutional affiliation of the lead researcher, published research articles should reference Kumasi Technical University as the researcher's institutional affiliation. Where support for the project came from other institutions should be clearly stated. Where the researcher has multiple affiliations, Kumasi Technical University should be indicated as the lead institution.
- iii. Members of the University community should seek approval from the Research Conference and Innovation Committee or appropriate authority within Kumasi Technical University

before presenting the findings of any research project funded by Kumasi Technical University at workshops, conferences or seminars either locally or internationally or publishing it in a journal.

- iv. Prior approval should be sought from Kumasi Technical University on the journal that author(s) intend to publish findings of a research project funded by Kumasi Technical University.
- v. Among other things, publication of the staff of Kumasi Technical University should contribute to the advancement of knowledge in the respective fields of the author(s) and or the core mandate of the institution.

## **Section Five**

### **5.0 Research Ethics Administration**

There shall be a REC established to administer research ethics in Kumasi Technical University. The REC shall be a Committee of the Academic Board.

#### **5.1 Membership**

- i. A Chair appointed by the Vice-Chancellor.
- ii. A representative appointed by each Dean of Faculty/Director of School/Institute with demonstrable expertise in matters of research ethics governance. Where the representative is unable to attend a meeting, a named alternate approved by the Dean of Faculty will be entitled to attend and vote.

- iii. Two members of University staff each being a member of a professional body which requires representation on the University REC.
- iv. Two members external to the University with expertise in relevant areas (as and when needed)
- v. The Director of the IRID
- vi. The Registrar or his nominee.

## **5.2 Period of Office**

The members of the Committee appointed under categories 5.1(a) to 5.1(f) shall serve for a period of three years and will be eligible for re-appointment.

## **5.3 Meetings**

- i. The Committee shall meet at least four times a year.
- ii. Special meetings may be convened to consider proposals that require urgent review.

## **5.4 Quorum**

The quorum shall be one half of those members eligible to attend meetings.

## **5.5 Functions**

- i. To recommend to Academic Board such policies as may be required on issues of ethics and governance in relation to research.
- ii. To implement the Kumasi Technical University's Research Ethics Policy approved by Academic Council.

- iii. To protect the interests of potential research participants.
- iv. To consider the ethical implications and degree of risk to researchers and participants of experiments, investigations and procedures carried out in the University or under its auspices
- v. To consider research proposals for experiments, investigations and procedures within these terms of reference and to allow, refer or disallow such proposals as the Committee deems fit.
- vi. To monitor the standard and application of research ethics across the University.
- vii. To provide training and advice on research ethics to staff and students of the University.
- viii. To provide the Academic Board with a detailed annual report on the work of the Committee.
- ix. To form sub-committees when necessary to assist in the discharge of its duties.
- x. To develop and publicize guidelines for assessment of research proposals.
- xi. To assess the suitability or otherwise of manuscripts.

## **5.6 Evaluation of Manuscripts**

- i. The university's publications shall follow the same procedure of manuscripts review, including submission procedure; technical content; relevance of material; cost effectiveness; and appropriate format /language outlined by the Editorial Committee of the Kumasi Technical University's official journal

- ii. The Editorial Board of Kumasi Technical University's official journal shall be responsible for evaluation of the quality of manuscripts meant for publications submitted for funding.
- iii. Patent resulting from project funded by the University should be owned jointly by Kumasi Technical University and the researcher concerned where necessary. Original findings of the staff of Kumasi Technical University should be protected by intellectual property (IP) law before publication.
- iv. Administrators to any such project shall be acknowledged.

## **5.7 Deadlines**

A written acknowledgement of receipt of proposal or final manuscript should be sent to the proponent within two days (48 hours) of receipt of correspondence.

The decision of REC on a research proposal/final manuscript submitted to it must be sent to the proponent within four (4) months of receipt of the proposal/manuscript

## **Section Six**

### **6.0 Funds for Publications**

In order to facilitate publications of the staff to boost the image of Kumasi Technical University, Publications Fund shall be established and managed for the purpose of publishing materials in furtherance of knowledge.

#### **6.1 Committee**

There shall be a Publications Funds Management Committee to administer the funds mobilised for the purpose of publishing educational materials. The membership of the Committee shall



be as follows:

- i. The Committee shall be under the chairmanship of the Vice-Chancellor;
- ii. A representative of the Research and Conferences Committee;
- iii. The Managing Editor of the Kumasi Technical University peer reviewed journal;
- iv. The University Librarian;
- v. Representative of the Finance Directorate;
- vi. A Senior Member with demonstrable expertise in fund raising and management; and
- vii. The Senior Assistant Registrar, Academic Affairs shall serve as Secretary to the Publications Funds Management Committee.

## **6.2 Functions**

- i. Among other things, the Publications Fund Committee shall be responsible for mobilizing and disbursing funds or providing suitable assistance to staff of the University for publication purposes;
- ii. The Committee shall receive applications for support towards publication of papers and books and grants;
- iii. Prepare budgets and submit to the Books and Publications Committee for approval; and
- iv. Any other functions relevant to promoting publications within the University Community.

### **6.3 Sources of Funds**

The sources of funds to the Publications Fund shall include but not limited to the following:

- i. Kumasi Technical University shall provide seed money for the Publications Fund;
- ii. Deduction from research grant received by Kumasi Technical University;
- iii. Income from consultancies/research projects undertaken by Kumasi Technical University;
- iv. Income from sale of journals, books, other products, etc.;
- v. Proceeds from research conference (surplus); and
- vi. Funding from stakeholder industries.

### **6.4 Qualification**

The person(s) who qualify to access support from the Publications Fund shall include staff irrespective of their position or rank and students.

### **6.5 Coverage**

Areas for which faculty members can apply for support shall include:

- i. Capacity building or training programmes on publication of papers
- ii. Conference participation leading to presentation of paper for publication
- iii. Publication of books, journal articles, etc.

- iv. Dissemination workshops or exhibitions, etc.

## **6.6 Types of Support**

The types of support that can be sought from the Publications Fund shall include the following:

- i. Provision of financial and technical support to staff to participate in conferences, seminars and workshops both locally and internationally to facilitate exchange of ideas.
- ii. Sponsor publication of proceedings of Research Conference, workshop and seminars organized by the University or any of its faculties, schools, institutes, centres, etc.; and
- iii. Support for staff capacity building in writing of articles for publication and books.

## **6.7 Administration/Procedure for Accessing Funds**

Without prejudice to any other policy or administrative measures in place at Kumasi Technical University, the following shall apply:

- i. Beneficiaries of Kumasi Technical University Publications Fund shall be members of the University Community either staff (full-time) or students;
- ii. All applications shall be routed through the applicant's head of department /division /unit; and dean of faculty/ director of school or institute (whichever is applicable).
- iii. All beneficiaries shall be obliged to acknowledge the support received from the committee administering the publications fund.

- iv. Any person or group of persons assisted to benefit from a capacity building programme shall be required to share the knowledge acquired with colleagues through seminar or workshop; and submit a written report on it to the Books and Publications Committee through the head of department/division/unit, and dean of faculty/director of school or institute.
- v. All beneficiaries shall be required to show evidence of publication (copy of article or book) to the Committee in charge.
- vi. A section in the Library shall be dedicated to showcase publications of staff.
- vii. Only request for assistance from members of the University community (full-time staff and students) shall be considered by the Committee for sponsorship.
- viii. The committee administering the Publications Fund shall make public its modalities for accessing funds available to the University community through appropriate platforms (notices, website, email, circular, etc.).

## **Appendix A**

Procedure for an applicant to obtain ethical approval/clearance:

- i. Proposals should be submitted to the REC at least four (4) weeks prior to the commencement of the project.
- ii. Obtain a form from the REC's website or office. Also, consent forms can be obtained directly from the REC office.
- iii. Carefully follow the instructions on the form and complete it by filling.
- iv. Submit the completed forms to the REC office.
- v. Pay the appropriate registration fees at the time of returning the completed forms
- vi. Obtain an acknowledgement letter from the Department/ Unit where research is proposed to be conducted indicating its awareness of the proposed study.
- vii. Confirmed filled forms will be attached to the report/ certificate issued by the REC for the project to commence.

## Appendix B

### Kumasi Technical University

#### Research Ethics Committee (REC)

#### Participant Information Leaflet and Consent Form

This leaflet must be given to all prospective participants to enable them know enough about the research before deciding to or not to participate.

- i. Title of Proposed Research:
- ii. Name(s), affiliation(s) of researcher(s) and their roles:
- iii. Background of research (Please, briefly explain what the study is about):
- iv. Purpose(s) of research:
- v. Procedure of the research, what shall be required of each participant and approximate total number of participants that would be involved in the research:

#### **Risk(s):**

(State possible risk(s) the participants might face in the course of the study and some preventive measures to be instituted)

#### **Benefit(s):**

(State the main aim of your intended study and how it will benefit the participants.)

#### **Confidentiality:**

(What mechanisms shall be put in place to ensure confidentiality of the research participants).

**Withdrawal from the research:**

(What shall be the outcome on this study, if a participant chooses to withdraw from it at anytime?)

Contacts of the Principal Investigator:

## CONSENT FORM

Statement of person obtaining informed consent:

I have fully explained this research to .....  
and have given sufficient information about the study, including  
that on procedures, risks and benefits, to enable this prospective  
participant make an informed decision to or not to participate.

DATE: ..... NAME: .....

Statement of person giving consent:

I have read the information on this study/research or have had it  
translated into a language that I understand. I have also talked it  
over with the interviewer to my satisfaction.

I understand that my participation is voluntary and that I can opt  
not to be involved.

I know enough about the purpose, methods, risks and benefits of  
the research study to decide that I want to take part in it.

I understand that I may freely stop being part of this study at any  
time without having to explain myself.

I have received a copy of this information leaflet and consent form  
to keep for myself.

NAME:.....

DATE: ..... SIGNATURE/THUMB PRINT: .....

Statement of person witnessing consent (Process for Non-Literate  
Participants):



I ..... do hereby certify that information given to (Name of Witness .....  
.....

(Name of Participant), in the local language, is a true reflection of what I have read from the study Participant Information Leaflet, attached.

WITNESS' SIGNATURE (maintain if participant is non-literate): .....  
.....

Statement of Parent or Guardian of Participant Under 18 years:

I, ..... having received full explanation on this research including that on procedures, risks and benefits; do hereby give my full consent for the participation of my child /ward.

DATE.....NAME: .....

Relationship to child/ward: .....

Name of Child/ward (maintain if participant is under 18 years):  
..... ..