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LIST OF ABBREVIATIONS

ARC:	Annual Research Conference
DP:	Deputy Principal
IP:	Intellectual Property
KNP:	Kisii National Polytechnic
PI:	Principal Investigator
RDU:	Research and Development Unit
RDC:	Research and Development Committee
R&DC:	Research and Development Coordinator
RIPP:	Research and Intellectual Property Policy
RIOD	Research and Innovation Open Day

DEFINITION OF TERMS

“**Complainant**” means a person, including a non-KNP member, who has a concern or concerns that an academic staff member or other member of KNP may have committed Research Misconduct

“**Disclosure**” is the notification of an invention to the patent filing office. Disclosure form comprises of name of invention and contact information of the inventor and date of filing.

“**Extension**” refers to scholarly activities that cut across teaching, research, and service. They focus on generating, transmitting, applying, and preserving knowledge for the direct benefit of external communities. Extension efforts represent an ongoing exchange between KNP and the larger society. Such efforts are an integral part of the broader KNP mission.

“**Innovation**” is the process of coming up with a new or improved good or service. It is the creation of new value or capturing of value in a new way. It also refers to a new or improved good or service.

“**Intellectual Property (IP)**” includes but not limited to creations of the mind: inventions, literary and artistic works, computer software, and symbols, names, images, and designs used in commerce and tangible research property such as biological materials.

“**Invention**” refers to any patentable or potentially patentable idea, discovery or know-how and any associated or supporting technology that is required for development or application of the idea, discovery or know-how.

“**Inventor**” shall mean a person covered by this policy who individually or jointly with others makes an Invention and who meets the criteria for inventorship under Kenya’s patent laws and regulations.

“**Research**” “Research is an original contribution to the existing stock of knowledge making for its advancement. It is the pursuit of the truth with the help of study, observation, comparison and experiment. It consist of enunciating the problem, formulating hypothesis, collecting the facts, analyzing the facts and reaching certain conclusions either in the form of solution(s) towards the concern problem”

“**Research Misconduct**” is the fabrication, falsification, or plagiarism in proposing, performing, or reviewing **research**, or in reporting **research** results.

“**Research Officer**” shall refer to a member of KNP staff who has been appointed by RDC to be in charge of or participate in a research programme for KNP.

“**Research Programme**” includes but not limited to research project, trainee research defense, abstract/proposal vetting exercise, research training workshop

“**Respondent**” means a person to whom these Guidelines apply

“Significant Use of Resources” refers to use of significant amounts of resources including funds, time, space, facilities, and materials of KNP to come up with an innovation, invention, research report or publication.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Establishment of Kisii National Polytechnic

Kisii National Polytechnic was founded in 1971 as a Harambee Institute of Technology. It was registered in 1972 under the Education Act CAP 212 of the Laws of Kenya with the objective of providing technical education and training for youths. It was moved from St. Vincent Centre where it was initially housed, to the current site in 1980. The first buildings to be put up were Woodwork Technology and Mechanical Engineering workshops, Typing pool, Hostels, Kitchen and Dining hall. The curriculum then was Secretarial and Building technology. The institute was elevated to a national polytechnic in May 2016 through Legal notice No. 93. Since then more courses have been introduced and currently Kisii National Polytechnic offers more than eighty-eight (88) courses in Certificate and Diploma levels.

Science and Technology (S&T) activities have been recognized in the institution since its inception as vital to social and economic development. There has been rapid expansion of science and technology since the enactment of Science and Technology Act CAP 250 of the laws of Kenya (1977).

The college is managed by the Governing council and college administration comprising of Principal, Deputy Principals, the Registrar, the Dean of Students, Heads of Departments and their Deputies . Day to day learning activities in the college is managed in the departments.

1.2 Mandate

The mandate of the polytechnic is to develop an institution with excellence in training, scholarship, entrepreneurship, research, consultancy, community service and products with emphasis on technology, its development, impact and application within and outside Kenya.

1.3 Vision

“To be the preferred training institution for technical and vocational skills development”

1.4 Mission

To develop a highly qualified, globally competitive and innovative human resource through quality training, applied research and extension and entrepreneurship skills that are responsive to the market demands

1.5 Core Values

1. Professionalism and Excellence
2. Creativity and Innovativeness
3. Teamwork
4. Integrity

5. Accountability and Transparency

1.6 Purpose of the Policy

RIPP is purposed to guide the activities of RDU in steering research, innovation and extension in KNP.

1.7 Rationale for the Policy

The need for a dynamic KNP Research and Extension Policy arises from a number of factors:

- i. The pivotal place of research and innovation in TVET and the country's drive for industrialization.
- ii. The TVET curriculum which emphasizes trainee research projects
- iii. The need to order activities in research and extension to ensure a robust research and development unit in KNP in response to KNP's mission and corporate objectives.
- iv. The ever increasing need for applied research to address the needs of the immediate KNP community.

1.8 Mandate

The Legal Notice No. 93 of May, 2016 specifies that one of the major functions of the Kisii National polytechnic is to “participate in the research, transmission and preservation and enhancement of knowledge and to stimulate the intellectual participation of trainees in the economic, social, cultural, scientific and technological development of Kenya”.

The Polytechnic therefore undertakes to:

- i. Ensuring a significant annual allocation of funds to KNP research and development budget;
- ii. Providing a good environment for staff and trainees to participate in research, innovation and extension activities;
- iii. Ensuring conditions that will foster best practice in research in KNP;
- iv. Providing an enabling environment for collaboration and partnerships in research with both national and international agencies.
- v. Protecting Intellectual Property for KNP inventors and authors.

1.8 Policy Objectives

- i. To establish a framework for conducting of quality research, innovation and extension
- ii. To establish a framework for documentation and protection of Intellectual Property of KNP staff and trainees
- iii. To develop and sustain research and publication culture
- iv. To undertake collaborative research with both industry and academia
- v. Develop mechanism for research funds mobilization and budgeting

- vi. Implement research findings
- vii. Establish links with local and international partner institutions

1.9 Scope of the Policy

The Policy applies to all members of staff, and trainees of KNP. It also applies to, any person or group affiliated to KNP who may wish to conduct research and/or develop an innovation for KNP, with KNP staff and trainees or about KNP.

1.10 Operationalization of the Policy

The policy shall become effective upon approval by KNP Governing Council and will be subject to review annually or when need arises. Further the policy shall be used to inform the review of the KNP Strategic Plan on research, innovation and extension issues. The Research and Development Unit (RDU) shall have responsibility for developing procedures and documentation necessary for implementing this policy.

CHAPTER TWO

2.0 STRATEGIES FOR RESEARCH

These are purposeful activities that shall ensure that KNP is able to realize the objectives set for research, innovation and extension activities:-

- i. Promote the role of KNP as a primary source of research through exchange programmes and strong academia - industry linkages through partnerships.
- ii. Utilize the skills of KNP staff to undertake all forms of research that contribute to the advancement of knowledge, cultural and social development, preservation of the environment and economic growth by employing qualified researchers.
- iii. Maintain cohesive plans and effective management policies and practices that foster excellence, support individual projects and thematic research, encourage interdepartmental research co-operation, and ensure the highest ethical standards and quality in research and creative work for both staff and trainees through defenses, vetting, seminars and workshops.
- iv. Work to increase external funding and support for research and creative work through publicity and grant writing.
- v. Implement Intellectual Property rights to protect, develop and exploit the intellectual property developed at KNP.
- vi. Promote research-based learning and enhance scholarship in research
- vii. Place a high priority on excellence in research and innovation through recognition and reward systems
- viii. Promote research teams and collaborative partnerships with other tertiary institutions, research institutions, public agencies and the private sector, at the county level, national level and internationally through linkages and extension

CHAPTER THREE

3.0 GUIDING PRINCIPLES

The following principles shall provide overall guidance for research, innovation and extension activities in KNP.

3.1 Create an Enabling Environment for Research and Extension

The policy recognizes that a positive harmonious, transparent and efficient environment is essential to foster research and extension in the Polytechnic. Within the portfolio of Polytechnic activities, research, innovation, teaching and outreach should be appropriately balanced to ensure efficient creation of knowledge and its transfer. Such an environment will be created through the following strategies:

- (a) Generate a research agenda periodically
 - i. Departments shall formulate research priorities that will feed into the Polytechnic research agenda.
 - ii. The priorities identified shall reflect national research objectives, priorities and relevant international trends.
 - iii. Research agenda shall promote both basic and applied research
 - iv. The review of the research agenda shall be pegged to the review of the Polytechnic Strategic Plan.
- (b) Facilitate regional and international collaboration, and global networking. The Polytechnic shall
 - i. Enter into MoU with leading research organizations and higher education institutions
- (c) Provide research support services including management information systems and library resources that facilitate access to international literature and databases. The Polytechnic shall, therefore:
 - i. Subscribe to relevant national and international databases that provide information to researchers
 - ii. Create and maintain its own research and innovations database accessible to the Polytechnic community and the general public

3.2 Strengthen Research Management and Coordination

The policy recognizes that research activities carried out through various academic and research units in the Polytechnic have to be managed and coordinated properly for the benefit of the entire Polytechnic in a fair and transparent manner. This will be achieved through the following strategies:

- a. Support staff to continually update their skills in research management. This shall be achieved through:
 - i. Conducting regular training on scholarly writing, workshops/seminars in grant proposal writing, financial management and research dissemination, etc.
 - ii. Developing and updating research management tools such as hand books

- b. Promote a mentoring and apprenticeship approach in research by:
 - i. Supporting staff and trainees to work together to produce joint publications
 - ii. Mainstreaming gender and actively involve women in research activities.

- c. Provide guidelines for supervisors during the research process to ensure harmony, quality and timely completion.
 - i. The supervisors shall adhere to examination regulations as provided for in KNEC guidelines and all other examining bodies.
 - ii. All supervisors/ research officers must conduct themselves in a manner that avoids any conflict of interest with the polytechnic
 - iii. All departments shall be encouraged to promote oral defense/ presentations of projects/research findings by the trainees before a panel(s) constituted by members of the departments

3.3 Improve Technology Transfer through Research and Publications

In order for the Polytechnic to attain and maintain a leading position in research output, the policy recognizes that the research and publication motive must be enhanced. This shall be realized through measures described below:

- a. Provide incentives /reward for research
 - i. Recognize and reward staff for outstanding performance in research and extension
 - ii. Develop, operationalize and periodically review guidelines on how to identify and reward staff for outstanding research and innovation
- b. Provide and support platforms for dissemination of research Outputs. The college shall:
 - i. Create platforms for staff and trainees to disseminate research outputs such as seminars, conferences, newsletters and bulletins (both hardcopy and electronic)
 - ii. Support units to organize regular conferences
 - iii. Support regular public presentations and debates on topical areas of national or international concern
 - iv. Support staff and trainees to publish research papers in refereed journals
- c. Promote ethical conduct of research in the Polytechnic. The Polytechnic shall:
 - i. Develop, operationalize and review periodically guidelines on good research practices.

3.4 Improve Funding for Research and Innovations

The policy realizes the importance of securing sufficient funds for staff members to conduct meaningful research, to attend national and international meetings, and to contribute to the research income of the Polytechnic. It is envisaged that the strategies highlighted below will improve funding for research and innovations.

- a. Increase the allocation of the internally generated funds to RDU for research, innovation and extension annually
- b. Continue to solicit research funds from national and international organizations, both public and private.
- c. Encourage solicitation of funding and facilitation at individual, departmental and polytechnic levels
- d. Provide general information including databases on possible sources and modes of research funding on a regular basis

3.5 Improve Gender-Responsiveness of the College through Research and Innovations

- a. Integrate gender in research work
- b. Encourage involvement of women in research teams.

CHAPTER FOUR

4.0 COORDINATION OF RESEARCH AND EXTENSION

Coordination of Research, Innovation and Extension shall be done as stipulated in this section.

4.1 Research and Development Coordinator

The Research and Development Coordinator (R&DC) has the overall responsibility for the management of the research, innovation and extension activities of KNP facilitated through the Research and Development Unit (RDU) of the polytechnic. He shall be assisted by the deputy R&DC. The R&DC reports directly to the Deputy Principal Academics and is the chair of the Research and Development Committee.

4.2 Research and Development Committee

The Research and Development Committee (RDC) shall plan and oversee implementation of the research, innovation and extension activities of KNP. The RDC shall comprise of the following members:

- (i) R&DC as chair
- (ii) Deputy R&DC as secretary
- (iii) Six Heads of Academic Departments. (*Appointed annually by the Principal*) as members.
- (iv) KNP Librarian as member.
- (v) Deputy Principal Academics as ex officio member

4.3 Functions of RDC

- i. Development and review of the RIPP and operational procedures which shall assist in setting out research priorities
- ii. Facilitating funding for research;
- iii. Guiding of staff and trainees in basic and applied research and innovation;
- iv. Establishing research priorities and agenda;
- v. Providing capacity building and monitoring of research projects;
- vi. Organizing seminars and conferences at KNP for dissemination of research findings, products and services;
- vii. Coordinating research extension services;
- viii. Strengthening capacity building in research;
- ix. Advice and strengthen Production Units through research
- x. Establishment of Innovation and Incubation Hubs
- xi. Ensure protection of KNP intellectual property
- xii. Promotion of quality publication of KNP journals
- xiii. Organization of Seminars and workshops and conferences
- xiv. Organizing field trips
- xv. Organizing and participating in Trade Fairs and Exhibitions

CHAPTER FIVE

5.0 INTELLECTUAL PROPERTY POLICY

The policy embraces the viewpoint that ideas or creative works produced at the Polytechnic should be used in ways that are meaningful in the public interest. This may be accomplished through widespread dissemination. Thus, dissemination and use of ideas and creativity should be encouraged throughout the KNP community. Although this policy recognizes that public benefit should be placed before financial gain, it is appropriate and often desirable for the Polytechnic and inventors and authors to benefit financially from the use of a particular invention or creative work. In deciding how to proceed in regard to a particular invention or creative work covered by this policy, the Polytechnic will consider the benefits and consequences for the public and the Polytechnic, as well as for individual inventors and authors.

KNP Intellectual Property Policy shall address issues related to Intellectual Property (IP) ownership, benefit sharing and management, and in so doing assist the development of a strong research and innovation culture in KNP and encourage a greater focus of and awareness of IP. This will provide a framework for unlocking the available polytechnic resource potential.

- a. The coverage of Intellectual Property Rights shall encompass patents, utility models, industrial designs, copyright of literary work, computer software, trade and service marks, new plant varieties, trade secrets and know-how.
- b. KNP shall own any Intellectual Property that is made, conceptualized, discovered or created by a member of staff, trainees, visiting researchers among others in the course of their employment and responsibilities or any person who makes significant use of the institution's resources in connection with the development of such Intellectual Property. Determination of whether such venture had significant use of KNP resources shall rest with RDC.
- c. Disclosure shall be required for all inventions for which the creator reasonably believes that it will be of commercial interest or value to the Polytechnic through the Research and Development Unit.
- d. Benefits derived from commercialization of the IP owned by the Polytechnic shall be equitably shared between the author(s) and the Polytechnic.
- e. The Institution shall retain a database within the Research and Development Office for all research findings. The research findings may be stored as video recordings, books, CD-ROM's, publications, and audiotapes or in any other retrievable forms.
- f. The Principal Investigators have the primary obligation to ensure that sufficient records are kept to document the experimental methods and accuracy of data interpretation and to

provide a basis for further research. All data shall be kept, preferably indefinitely, but for at least 6 years.

- g. All research reports and related materials shall be archived in KNP Library for a period not less than 6 years to protect any patent resulting from the research.
- h. All KNP research findings and publications in hard copies, electronic copies, audio typing or video tapes shall be available within the Polytechnic Library for use by members of the Polytechnic for purposes of research and teaching with authority from the author and the Polytechnic. Unless the material is protected by copyrights, it shall be available for copying electronically or by photocopying.
- i. Where the research findings may lead to patentable rights, the Polytechnic and the agency funding the research, shall pursue the patents and the IP policy shall apply.
- j. Appropriate procedures will be established to deal with concerns of Research Misconduct. For trainees, this will be Research Misconduct which involves unacknowledged copying or plagiarism and will be treated as an “examination offence” pursuant to the institution Examination, Rules and Regulations. The Examination Rules and Regulations are to be read in conjunction with this policy.
- k. Where any person, including a non-polytechnic member, has any concerns that an academic staff member or other member of the institution may have committed Research Misconduct, established complainant procedures shall be followed.

CHAPTER SIX

6.0 FUNDING FOR RESEARCH AND INNOVATION

KNP recognizes three sources of funding for research activities; internal, external and research consultancy

6.1 Internal Research Funds

- a. KNP Governing Council shall remit at least 2.5% of the income from trainees' tuition fees to annual RDU budget to be used in funding various research activities;
- b. The main research activities that shall be funded from Internal Research Funds include but not limited to;
 - (i) KNP Annual Research Conference(ARC)
 - (ii) KNP Annual Research and Innovation Open Day (ARIOD)
 - (iii) Developing of innovations by staff and trainees
 - (iv) Funding of collaborative research
 - (v) Funding of Applied research
 - (vi) Facilitation of staff and trainees to disseminate findings in both local and international conferences
 - (vii) Facilitation of staff and trainees to innovation fairs
 - (viii) Patents and publications
 - (ix) Training workshops and seminars
 - (x) Stationery and materials for RDU

6.2 External Research Funds

- (a) KNP staff and trainees may individually or in teams apply for external funding for various projects and research and innovation activities.
- (b) The RDU shall post calls for research funding from government agencies including National Research Fund (NRF), National Commission for Science Technology and Innovation (NACOSTI) and other external corporations and guide staff and trainees in the application process.
- (c) Grants won from external sources will be used for the purpose applied for in the call.
- (d) Interinstitutional research collaborations and partnerships with KNP must be preceded by a duly signed agreement that will include how funds will be allocated and how Intellectual Property shall be documented.

6.3 Research Consultancy

- (a) RDU may earn funds by providing research consultancy for external clients including corporations and government institutions and individuals either from writing proposals, training etc.
- (b) Members of staff may also provide research consultancy in their personal capacities. Such members shall register their intention to conduct consultancy at RDU and the

details of such consultancy shall be evaluated and if found wanting be dispelled of by RDU.

- (c) Earnings from research consultancy shall be processed and expended as stipulated in the Production Units Policy.

CHAPTER SEVEN

7.0 MONITORING AND EVALUATION OF RESEARCH PROJECTS

7.1 Establishment of Research Monitoring and Evaluation Committee

- a. Annually the Research and Development Committee shall appoint five members of the committee to form the Research Monitoring and Evaluation (RM&E) sub-committee of the RDC;
- b. The RDC shall also appoint a Chairman for the RM&E

7.2 Functions of Research Monitoring and Evaluation Committee

The committee shall;

- a. Support research project accountability by reporting on activities funded by KNP through RDU;
- b. Provide advice to the Research and Development Committee on the achievements, shortcomings, lessons learned from specific projects and to recommend follow-up actions;
- c. Visit experimental sites for the purpose of assessing and reporting on projects;
- d. Provide quarterly progress reports of project activities and a final report at the end of the project.

CHAPTER EIGHT

8.0 EXTENSION SERVICES

8.1 Scope of Extension Services

- a. Research findings which can find immediate application to the society and more so, to the surrounding communities, shall be disseminated through extension services of KNP;
- b. KNP shall endeavour to encourage its staff and trainees, through their departments, faculties and other recognized units, to participate in research activities in the community.
- c. Individual members of KNP who wish to engage in development activities shall inform the RDU of their intended activities in the community and shall similarly inform KNP of the outcomes of such activities;
- d. Those who participate in extension activities shall at all times safeguard the reputation of KNP;
- e. KNP shall recognize successful extension services provided to the community through awards and recognition certificates of participation issued by the Principal;
- f. Profit making extension services shall be considered as consultancy services and shall be engaged under the guidelines provided in consultancy services.

8.2 Priority Areas for Extension

KNP extension services shall focus, but not limited to the following areas of extension:

- a. Health Sub-sector;
- b. Education Sub-Sector;
- c. Agricultural Sub-Sector;
- d. Water Resources and Environment Conservation;
- e. Weather and climate;
- f. Technological innovations and applications;
- g. Industries in Kenya.
- h. Business culture
- i. Socio-cultural