



**TECHNICAL UNIVERSITY OF MOMBASA**

*A Centre of Excellence*

# RESEARCH POLICY



TUM IS ISO 9001: 2015 CERTIFIED

## TABLE OF CONTENTS

|   |            |
|---|------------|
| <b>ABBREVIATIONS AND ACRONYMS .....</b>   | <b>iii</b> |
| <b>PREFACE .....</b>  | <b>iv</b>  |
| <b>FOREWORD.....</b>  | <b>v</b>   |
| <b>ACKNOWLEDGEMENT .....</b>  | <b>vii</b> |
| <b>1.0 INTRODUCTION.....</b>  | <b>1</b>   |
| 1.1 Vision .....  | 1          |
| 1.2 Mission.....  | 1          |
| 1.3 Core Values .....   | 1          |
| 1.4 The Research Policy Principles .....  | 2          |
| 1.5 Guiding Values.....   | 2          |
| 1.6 Motto .....   | 3          |
| <b>2.0 MISSION AND JUSTIFICATION .....</b>  | <b>4</b>   |
| 2.1 Mission of the Research Policy and Strategy.....                                    | 4          |
| 2.2 Justification for the Research Policy and Strategy .....                            | 4          |
| <b>3.0 RESEARCH POLICY OBJECTIVES AND STRATEGIES.....</b>                               | <b>5</b>   |
| 3.1 Development of a Research Culture at the University .....                           | 5          |
| 3.2 Promoting Innovation and Extension .....  | 6          |
| 3.3 Establishment of Collaborative Research Linkages .....                              | 6          |
| 3.4 Institution of Mutually Beneficial Partnerships and Linkages .....                  | 7          |
| 3.5 Facilitate Transfer of Appropriate Technologies and Diffusion of New Knowledge..... | 7          |
| 3.6 Enhancing TUM Research Output and Publications .....                                | 8          |
| 3.7 Development and Maintenance of Facilities and Physical infrastructure .....         | 8          |
| <b>4.0 ETHICAL OBLIGATIONS.....</b>   | <b>9</b>   |
| 4.1 Ethical Obligations .....   | 9          |
| 4.2 Inventions, Patents and Licensing .....   | 9          |
| 4.3 Copyrightable Instruction Materials Ownership, Use and Control .....                | 9          |
| 4.4 Commercialization of Research Outputs .....   | 10         |
| 4.5 Misconduct in Research.....   | 10         |
| 4.6 Force Majeure/ Act of God.....  | 11         |

|  |           |
|--|-----------|
| <b>5.0 COORDINATION OF RESEARCH, EXTENSION AND INNOVATION.....</b>               | <b>12</b> |
| 5.1 Research Management.....   | 12        |
| 5.2 Research Coordination .....  | 12        |
| 5.3 Schools Research Committees .....  | 12        |
| 5.4 Research Implementation Infrastructure .....                                 | 12        |
| 5.4.1 Research Infrastructure .....  | 13        |
| 5.4.2 Administration .....   | 13        |
| 5.4.3 Finance.....   | 13        |
| 5.4.4 Human Resource Management .....  | 13        |
| 5.5 Research Procedures .....  | 14        |
| 5.6 Research Records.....  | 14        |
| <b>6.0 CAPACITY BUILDING .....</b>   | <b>15</b> |
| 6.1 Introduction.....  | 15        |
| 6.1.1 Establish University Research Fund .....                                   | 15        |
| 6.1.2 Build and Efficiently Utilize Human Capital.....                           | 15        |
| 6.1.3 Promote Research with Industry.....  | 16        |
| 6.1.4 Build Capacity for Research Development and Implementation<br>17           |           |
| 6.1.5 Communicate Research to Build Public and International<br>Support.....     | 17        |
| 6.1.6 Create Awareness on the Research Process among Staff and<br>Students ..... | 18        |
| 6.1.7 Tapping University’s ICT Capacity to Enhance Research .....                | 18        |
| 6.1.8 Transform Innovation Prototypes to Commercialized Products<br>19           |           |
| <b>7.0 POLICY MONITORING, EVALUATION AND REVIEW.....</b>                         | <b>20</b> |
| 7.1 Policy Monitoring and Evaluation.....  | 20        |
| 7.2 Policy Amendments and Review .....   | 20        |

## ABBREVIATIONS AND ACRONYMS

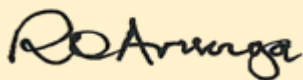
|         |  |
|---------|--|
| ARE     | Academic, Research and Extension                           |
| DVC     | Deputy Vice-Chancellor                                     |
| ICT     | Information Communication Technology                       |
| PRI     | Partnership, Research and Innovation                       |
| NACOSTI | National Commission for Science, Technology and Innovation |
| TUM     | Technical University of Mombasa                            |
| TVET    | Technical Vocational Education and Training                |

## PREFACE

The Technical University of Mombasa (TUM) was awarded its charter on 30<sup>th</sup> of January 2013 under the Universities ACT 2012. Teaching and research are core functions of a university, while research on its own right is the corner-stone of every advance made in technology. It is on the strength of this that the Research Policy is developed to be in line with the University's mandate and a projection on the achievement of Vision 2030.

The University takes the initiative and is committed to promoting access to research opportunities, and improved research procedures that will lead to opportunities for the industrialization of Kenya as a country. By undertaking research, innovation and extension services as defined in the research policy, TUM will enhance the research skills of its members and transform them into a credible resource bank of innovations for technological progress.

It is envisaged that this research policy document will go a long way in offering the necessary policy statements that guide research activities to attract and capture growth and technological advances not only to this University but the entire nation and beyond.



**Dr Robert Arunga**  
**Chairman of Council**

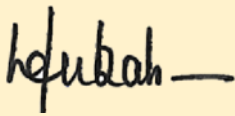
## FOREWORD

The Technical University of Mombasa (TUM) Strategic Plan 2018-2022 identified research, innovation and extension as key drivers to socio-economic transformation based on a knowledge economy. Knowledge generation for innovation endeavours is one of the core functions of a university. This Policy is the result of significant consultation with faculty staff, research leads and professional services departments. Our intention is to evolve a research and innovation culture that is dynamic, externally focused and responsive. It is aimed at harnessing the limited resources we have, from our student body to our excellent academic staff. We are developing a capacity that has great potential to deal with global challenges and ensures our research and innovation has a wide-ranging impact.

Building on our existing strengths, this Policy sets out our aspirations and provides a framework to deliver our mission and vision. This strategy provides a framework that allows us to build upon those core strengths and to expand our research and innovation footprint. In addition, it maps out how we will deliver interdisciplinary research across five key thematic areas.

We wish to pursue bold ideas, be creative and work to the highest standards, and in doing so, undertake research that acts as a driver for economic growth. We will endeavour to elevate our position among the top universities in the world. Our six thematic areas are designed to galvanise existing and new research avenues across the University and to add value through establishing new collaborative partners, both within and outside the institution. Together, we will look for new funding opportunities, create and test new ideas, explore alternative applications of our existing ideas and deliver economic growth through innovation.

This Policy represents a strong statement from the University, committing its resources, people and passion to the pursuit of globally significant research and innovation. We can achieve a great deal if we work together and I hope that you too see a bright and prosperous future exploring these new ideas to help deliver a better world to live in, both now and in the years to come. I invite TUM faculty and students to exploit the opportunities provided in this Policy to engage in open up new opportunities through undertaking globally significant research and innovation excellence.



**Prof. Laila U. Abubakar**  
**Vice-Chancellor**

## ACKNOWLEDGEMENT

I wish to acknowledge the valuable contributions made towards this document by the following individuals:

- |      |                         |                  |
|------|-------------------------|------------------|
| i)   | Prof. Laila U Abubakar. | Chairperson      |
| ii)  | Prof. Saeed M. Mwaguni  | Secretary        |
| iii) | Dr Victor J. Tunje      | Member, Co-opted |
| iv)  | Dr Anwar Hood.          | Member, Co-opted |
| v)   | Mr Daniel K. Mwaringa   | Member           |
| vi)  | Mr Obadiah Musau.       | Member, Co-opted |

**Prof. Peter B. Gichangi**  
**Deputy Vice Chancellor (ARE)**



## 1.0 INTRODUCTION

The Technical University of Mombasa (TUM) has committed itself to advance knowledge through education and training, research and scholarship, emphasizing interdisciplinary learning and discovery. This includes, by definition, all the research conducted at the University. This Policy document serves as a broad policy framework, which must be interpreted in the context of the other relevant policy and procedural documents, which guide academic practice in TUM. TUM subscribes to the view that good science respects ethical accountability according to internationally accepted norms and that the responsibility for this lies with every person conducting research under the auspices of TUM. The document, therefore, provides a framework for effective use of research resources and an open environment for collaborative research, fairness and accountability in research matters.

### 1.1 Vision

A Technical University of Global Excellence in Advancing Knowledge, Science and Technology.

### 1.2 Mission

To advance knowledge and its practical application through teaching, research and innovation to serve both industry and the community.

### 1.3 Core Values

The Council, Senate, Management, staff and students of TUM will endeavour to institutionalize and inculcate values fostering a strong corporate culture while promoting quality service delivery, cohesion in our diverse community and achieving the targeted goals. These will be realized by espousing the following values:

- i) *Excellence.* We strive for excellence in quality teaching, learning and research, and customer focus by continuously assessing ourselves, applying our own and international benchmarks.
- ii) *Integrity and Professionalism.* We expect high standards of integrity, ethics and respect from one another across the institution and honour collegiality and a climate of critical professionalism among staff and students.
- iii) *Equity.* We are committed to equity, diversity and fairness, and seek to nurture and build on our diverse cultural heritage
- iv) *Teamwork.* We place a high premium on teamwork and shared responsibility working with each other and with external groups in ways that are mutually beneficial.
- v) *Creativity, innovativeness and environmental sustainability.* We embrace innovative problem solving and promote creative value-based solutions. We cultivate a socially secure, responsive and sustainable green environment.

#### **1.4 The Research Policy Principles**

- i) Enabling work environment
- ii) Preservation and Conservation of the Environment
- iii) Protecting the researcher
- iv) Protecting experimental and laboratory animals
- v) Ethical practice
- vi) Fair reporting of research findings
- vii) Intellectual property rights

#### **1.5 Guiding Values**

- i) Preservation and Conservation of the Environment
- ii) Good governance and leadership
- iii) Mentoring
- iv) Scholarly research and Innovation

v) Equal opportunity

## 1.6 Motto

*Jiddu Tajidu (Endeavor and Achieve)*

## 2.0 MISSION AND JUSTIFICATION

### 2.1 Mission of the Research Policy and Strategy

To provide clear guidelines for research management at the University in order to create a research culture where students, staff and collaborators, organized in research groups, tackle research issues for the benefit of society and, for national and international development.

### 2.2 Justification for the Research Policy and Strategy

The following factors have necessitated the development of this Policy:

- i) To guide research management in the University;
- ii) To enable TUM to fulfill its core mandate of research;
- iii) To be used as a tool for the generation of additional funds for the University;
- iv) To help in enhancing the capacity of lecturers in their work;
- v) To provide mechanisms of resolving conflicts arising from the ownership and benefits sharing between the University and inventors or stakeholders;
- vi) To boost the confidence of potential collaborators and donors;
- vii) To promote the image and rating of the institution through papers published in international refereed journals; and
- viii) To define terms of engagement among the research community at TUM and its collaborators.

### 3.0 RESEARCH POLICY OBJECTIVES AND STRATEGIES

The overall purpose of this Research, Innovation Extension Policy is to provide a framework for the governance and conduct of both basic and applied research, as well as, promote the positioning of research as a priority pursuit in the University. TUM shall support research in both basic and applied research especially one that advances knowledge in Engineering, Science and Technology, Liberal Arts and other related areas that benefit society, in accordance with its Vision, Mission by focusing on the following thematic areas:

#### 3.1 Development of a Research Culture at the University

A culture of research requires both institutional and unit-based leaders not only set clear research goals but also to communicate them effectively. Institutions wishing to develop a culture of research must invest significant resources for faculty training and support. Developing a culture of research requires an open and collaborative personal relationship among faculty members and, this must be nurtured. To implement cultural change, the University must be prepared to tailor resource allocation based on the faculty member's current motivation and abilities. A culture of research may take longer to develop, but once established, will require regular maintenance. Plans for a culture of research should include consideration of student involvement. For this to happen TUM shall employ the following to promote research culture:

- i) Identify signature areas of research and facilitate the establishment of research groups;
- ii) Explore research funding opportunities and provide seed money for prospective researchers;
- iii) Provide funding for short-term research activities that have the potential for attracting research grants;

- iv) Inculcate a culture of research among students to create a pool of future researchers; and
- v) Facilitate publication of research findings and participation in scientific conferences.

### **3.2 Promoting Innovation and Extension**

Universities the world over exist to promote creativity and innovation. While creativity refers to the generation of new ideas, innovation, on the other hand, is the translation of the ideas generated, into a finished product, service or method of production. For a culture of creativity to thrive, the University must create a conducive atmosphere for its employees to motivate them to seek new ways of doing things, as our customers become more sophisticated, segmented and demanding. This has led to heightened expectations in terms of customisation, newness, quality and price. In a world where competitors constantly improve their services, good ideas are quickly copied and replicated elsewhere, continual pressure to devise new and better products, processes and faster and efficient delivery of services cannot be gainsaid. Innovation and new technology transfer, therefore, offer plenty of opportunities for employment and wealth generation, both benefits which research must pursue. To promote innovation and extension the University shall:

- i) Establish and fund incubation centres; and
- ii) Promote commercialization of research innovation outputs.

### **3.3 Establishment of Collaborative Research Linkages**

Research undertakings require massive investment in terms of human resources and equipment. Such resources are scattered in many universities and research institutes. To ensure such resources are utilized effectively, there is need to promote collaborative research and linkages. Working relationships in such ventures can be harmonized through a memorandum of understanding signed among and between collaborators.

The University shall:

- i) Identify and link with collaborators conducting related areas of research; and
- ii) Explore new areas of research collaboration with partners.

### **3.4 Institution of Mutually Beneficial Partnerships and Linkages**

Collaborative research, connecting industry with university researchers is vital for TUM's prosperity. Large amounts of excellent research take place in universities and research institutions, but the country does less in connecting industry with research to turn the outputs of research into goods and services –improving peoples' lives. Universities future competitiveness will thus depend on collaborative research across disciplines and sectors for survival.

To ensure mutually beneficial partnerships and linkages the university shall:

- i) Provide opportunities to faculty for further training in research sabbatical programmes at partnering institutions;
- ii) Promote joint research programmes and publications of academic papers;
- iii) Promote research partnerships with industry.

### **3.5 Facilitate Transfer of Appropriate Technologies and Diffusion of New Knowledge**

Transfer of technology is specifically linked to the movement of a specific set of capabilities. Technological learning and innovation are essential for economic growth and development and are major determinants of long-term improvement in income and living standards. To the developed world, technological progress involves the generation of knowledge that can be used for productive activity. For developing countries, technology progress is strongly influenced by their ability to access, adopt and diffuse technological knowledge generated elsewhere. Since technology transfer is essential for development this shall be propagated through:

- i) Sector-based approach;

- ii) Shows and Exhibitions;
- iii) Exchange programs.

### **3.6 Enhancing TUM Research Output and Publications**

Publishing academic papers is recognized as vital not only for career advancement of individual researchers but also for the standing, ranking and recognition of the university. Academic publishing is the most visible result of research activities and an essential medium for the dissemination of knowledge. Where these academic papers are published as well as the citation rates of the papers are key indicators of research scope and quality.

Therefore, to enhance TUM Research output and publications, the university shall:

- i) Encourage staff members and students to publish papers in recognised and accredited peer-reviewed journals;
- ii) Establish mechanisms for effective reporting, measuring and monitoring the University research outputs and publications; and
- iii) Provide enabling environment, infrastructure and build the required capacity to support the publishing of academic research findings.

### **3.7 Development and Maintenance of Facilities and Physical infrastructure**

TUM shall develop the infrastructure commensurate with academics and research as well as student services. TUM shall mobilize finance from various agencies to acquire, construct, rehabilitate, maintain and change the use of physical facilities and infrastructure in line with vision 2030. In order to achieve this, TUM shall:

- i) Improve ICT infrastructure to promote online publishing of research outputs;
- ii) Develop partnerships in the provision of physical infrastructure;
- iii) Regular maintenance of existing structures; and
- iv) Build database and programs for ongoing research management.



## 4.0 ETHICAL OBLIGATIONS

### 4.1 Ethical Obligations

TUM researchers shall adhere to a code of ethics as per the Ethics and Review Committee's guidelines, the National Commission for Science, Technology and Innovation (NACOSTI) guidelines and any other legislation when dealing with issues from the nature of research. In pursuit of this ideal, where applicable, all research proposals presented for possible funding through the University research fund shall have undergone ethical review and approval by a duly constituted and competent body.

### 4.2 Inventions, Patents and Licensing

Graduates, students, post-doctoral scholars and all other participants in research projects (either for pay or academic credits) are covered by this policy. It requires that the researchers must disclose all potentially patentable innovations conceived in part or in whole in the course of the university responsibilities or with more than incidental use of university resources. Title to such innovations shall be assigned to the University. This does not include a student regular course work. However, if in the course of this work, a student makes more than incidental use of University resources (including specialized equipment, laboratories and research facilities) to create potentially patentable innovation, that innovation must be disclosed to the university and title assigned to the university.

The university shall claim co-ownership to pedagogical, scholarly or artistic work of students created in the course of their education such as dissertation, papers and articles. The copyright shall be co-owned between TUM and the creator.

### 4.3 Copyrightable Instruction Materials Ownership, Use and Control

TUM shall claim ownership of materials which results from the staff or students scholarly articles, journal articles, research bulletins, monographs and books unless the institution enters into a written agreement prior to the beginning of the project

that defines the rights and responsibilities of the author the institution and any other stakeholders in the project.

#### **4.4 Commercialization of Research Outputs**

Commercialization of research outputs shall be governed by guidelines as outlined in the Intellectual Property policy. On this note, the University shall create incubation centres as beehives of innovation and will work with partners and industry to commercialize innovation and research outputs where possible on the basis of benefit to the University and development of the Nation. The aim of commercialization of research outputs is to create wealth and develop the University in line with the objective of transforming it into a hub for the advancement of knowledge, science and technology acceptable globally.

#### **4.5 Misconduct in Research**

Ensuring and sustaining integrity in all aspects of research is a core aspect of the University's commitment to the advancement of knowledge. Because misconduct in research damages the integrity of research brings both the individual and the institution into disrepute and can, in extreme circumstances, cause harm to those involved in the research. This procedure has been approved by the Senate and the Council of the University to provide a procedural framework for investigating allegations of misconduct in research concerning research conducted under the auspices of the University.

Research at TUM shall uphold the highest standards of rigour and integrity in all aspects of research. Because research misconduct is such a serious matter, those responsible for staff and students conducting research have a particular duty to ensure that those new to research or to the University receive the appropriate training in the ethical, legal and other conventions concerning the conduct of research. To sustain this approach the University shall:

- i) Provide a research environment that fosters and supports honesty in research and also discourages unacceptable behaviour by dealing seriously and sensitively with all allegations of misconduct in research;
- ii) Ensure that all research practices conducted under the auspices of the University conform to the University's Code of Practice for Research. Failure by a researcher to comply with the provisions of that Code will be grounds for action to be taken under this Procedure;
- iii) Require staff, research students and all others conducting research under the auspices of the University report misconduct in research where they have good reason to believe it is occurring; and
- iv) Investigate allegations or complaints about misconduct in research. Those making an allegation or complaint will not be penalised, provided that it is done without malice and in good faith, reasonably believing it to be true.

#### **4.6 Force Majeure/Act of God**

Non-performance of research that has been undertaken by a member of staff/postgraduate student under any given contract shall be excused to the extent that such performance is prevented by circumstances beyond the reasonable control of TUM and/or the donor agency.

## 5.0 COORDINATION OF RESEARCH, EXTENSION AND INNOVATION

Research, innovation and extension services at the University shall be coordinated through the following offices and committees:

### 5.1 Research Management

Research, Extension and Innovation management shall be managed by the DVC (ARE).

### 5.2 Research Coordination

The Registrar PRI shall coordinate Research, Extension and Innovation activities at the University and shall assist the DVC (ARE) in monitoring the Research Policy Implementation and Enforcement.

### 5.3 Schools Research Committees

- i) Schools/Institutes Research Committees shall be established by the respective Deans and Directors to support the research activities of their staff and postgraduate students.
- ii) Each School/Institute shall develop its own research plan. This task shall be implemented by the respective Heads in consultation with the DVC (ARE) and Registrar PRI.
- iii) Each Department shall constitute its research committee with the assistance of the respective Deans of the School.

### 5.4 Research Implementation Infrastructure

To ensure the development of research at the University the following Policy Areas and Issues shall be addressed:

#### 5.4.1 Research Infrastructure

- i) Enhance the University Website;
- ii) Enhance ICT infrastructure including computers, networks, communication and research software;
- iii) Adequately equip the library, laboratories and laboratory equipment;
- iv) Assure adequate modes of transport as necessary;
- v) Other infrastructure.

#### 5.4.2 Administration

- i) Establish collaborations and linkages
- ii) Offer legal assistance
- iii) Monitor to measure productivity
- iv) Support dissemination of research findings (website, publications)
- v) Provide opportunities for collaboration of multidisciplinary projects
- vi) Develop Research Networks
- vii) Maintain Research Standards

#### 5.4.3 Finance

- i) Ensure transparency in research funding management and accounting
- ii) Source for grants and projects
- iii) Ease procurement procedures to facilitate access to research funds

#### 5.4.4 Human Resource Management

- i) Create positions that support research within the University establishment
- ii) Recruit competent staff for research development
- iii) Provide study leave, sabbatical leave for research undertakings
- iv) Ensure loading of academic staff considers the availability of time for research activities
- v) Embrace an appraisal policy for research achievements

## 5.5 Research Procedures

Procedures for research by students, research by staff, collaborative research, research on behalf of external bodies, patenting on a new discovery, community and extension services, and business incubation shall be as guided by the Standard Operating Procedures for Research, Innovation and Extension.

## 5.6 Research Records

The records to be maintained by Research Division shall include:

- i) Incubation application forms
- ii) Research Committee minutes
- iii) Copies of Advertisements by PRI/Other relevant ones
- iv) Budgets
- v) Incubation Reports
- vi) Research approval reports
- vii) Seminar reports
- viii) Publications
- ix) Research progress reports
- x) Research grant applications
- xi) Research proposals
- xii) Community and Extension Service proposals
- xiii) Community and Extension service committee minutes
- xiv) New Discovery Forms

## 6.0 CAPACITY BUILDING

### 6.1 Introduction

Many challenges face the University, limiting its ability to address complex research issues. Such challenges include inadequately trained staff for a career in research management, lack of suitable facilities, limited human and financial resources, essential for maintaining and sustaining research systems, inadequate operational funds, limited involvement of the private sector in research at the University and, poor networking with the international research community to access state of the art technologies, have all limited our ability for building capacity to confront these challenges through cutting-edge research. To meet the above challenges the University shall:

#### 6.1.1 Establish University Research Fund

To foster research development and safe application of research findings at the University, an institutional strategy must be put in place to ensure a steady flow of resources to facilitate research. The source of such fund may include tuition fees and gifts as well as large funding from external sources that fund research activities. Consequently, there is a need to establish University Fund, specifically for financing research activities on a competitive basis through the provision of both short- and long-term fellowships and competitive grants for research. To have this realized, a framework that includes schedule and procedure for the award of these grants needs to be put in place as per the Government of Kenya guidelines.

#### 6.1.2 Build and Efficiently Utilize Human Capital

Strategies to exploiting capacity building and training as avenues that enhance and accelerate research activities in institutions of higher learning are missing. Despite efforts to foster a culture of research at TUM, many challenges have existed in the absence of policy guidelines to achieve this.

This policy emphasizes the provision of opportunities to increase the research capacity of the schools, institutes and departments to enable individuals to carry out research in relevant areas and to be able to come up with new concepts, technologies and innovations. Such an objective can be realized through opportunities for post-graduate training, and short-term post-graduate training programs and this area needs to be pursued as an avenue for meeting the demands of research delivery needs.

Strategies to realize this include:

- i) A proactive approach that diversifies options in seeking fellowships/donor support for postgraduate education rather than relying on the traditional sources;
- ii) Adoption of ICT for information access and delivery;
- iii) Providing a platform for compilation of postgraduate training programs and output at the Institution; and
- iv) Organize for, and coordinate postgraduate and staff research exhibitors, conferences, seminars and workshops.

These activities would build capacity for research in the University, which will be in addition to enhancing the image of the institution.

### **6.1.3 Promote Research with Industry**

Experience from the developed world has shown that university-public-private sector partnerships in research and development are one of the best ways for organizing and managing technological innovations for the development of society. Declining public funding for Research and Development, competition necessitated by a globalizing world and increased diffusion of information and communication have increased the need for private industry to engage/invest in Research and Development.



In the light of this, the University should take advantage of such an opportunity to engage in a partnership of research units with private sector players through joint research ventures, contractual research programs and other appropriate areas of engagement. Memorandum of Understanding (MOUs) can be entered into in furtherance of ideas.

#### **6.1.4 Build Capacity for Research Development and Implementation**

- i) Avail support service for administration of internal and external research funds, including monitoring research progress and expenditures, and evaluation of research results;
- ii) Enable the Research Division as the focal point expedite internal-external research dissemination and external liaison;
- iii) Develop and maintain a central database for research activities;
- iv) Provide secretariat and support services to the University Research Committee and other working groups, evaluating research proposals for funding.

#### **6.1.5 Communicate Research to Build Public and International Support**

Communicating research is not just about disseminating research findings as a *fait accompli* at the end of a project, but rather about making evidence provided by research to bring about change through influential development policies and programs. To inform policy processes, research needs to be communicated effectively to key target audiences. This entails reflecting on the ways in which evidence can influence those who decide, as well as those who influence key players and those who can be affected by the decisions made. It is about “shifting” from a unilateral vision of communication towards a bilateral, multi-directional and interactive communication that involves decision-makers and other key actors in permanent dialogue and exchange process, thus increasing the probabilities of influence. To meet this research communication demand,

TUM shall:

- i) Provide avenues for information delivery system and network to enhance sharing of research information as a way of promoting research activities in the University;
- ii) Organize and coordinate faculty-based research conferences and publicise the conference outputs online and on print;
- iii) Offer avenue for postgraduate students to share their research findings through conferences, workshops and seminars;
- iv) Expand support for publishing and dissemination of research findings in reputable referred Journals; and
- v) Seek partners to organize regional and international conferences at the University.

#### **6.1.6 Create Awareness on the Research Process among Staff and Students**

Understanding the Research Process is key for members of staff and students to become effective research implementers and administrators. This shall be achieved by:

- i) The Research Division creating the opportunity for members of staff and students to learn the research process
- ii) Efforts should be undertaken to invite guest researchers to act as resources person to explain how problem statements are changed into opportunities for research and development.

#### **6.1.7 Tapping University's ICT Capacity to Enhance Research**

TUM has expanded its ICT infrastructure. Consequently, advantage shall be taken of this by PRI to among other things:

- i) Provide access to research information through ICT;
- ii) Use ICT to build database and programs for ongoing research management;
- iii) Enhance online publishing; and
- iv) Use ICT capacity to enhance the visibility of research activities.

#### **6.1.8 Transform Innovation Prototypes to Commercialized Products**

TUM is blessed with a vibrant student population keen on matters technology and innovation. To date, some of the innovations have been patented and are ready for commercialization. Unfortunately, uptake of the research proto-type into commercialized products has been slow, though very promising for putting the name of the university into the international arena. Notably, despite limited support our students have invented the manufacture of lotion and soaps as natural products from algae, registered their copyrights and patents that now need matriculation into products in the market. To ensure support in this direction:

- i) The University shall develop a clear strategy to link research and innovation activities to the commercialization of products; and
- ii) Shall support innovation activities through the creation of incubation centres.

## 7.0 POLICY MONITORING, EVALUATION AND REVIEW

### 7.1 Policy Monitoring and Evaluation

In order to develop a research culture at the University, there shall need to put in place monitoring, evaluation and enforcement mechanism for successful implementation of the Research, Extension and Innovation Policy. This policy shall, therefore, form the basis for, and be recognized as the overall guide to all research development activities at the University.

The Schools/Institutes shall, therefore, put in place monitoring and evaluation mechanisms to monitor and ensure that implementation of the policy is effective and on course.

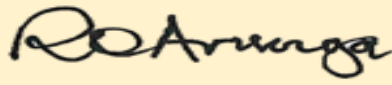
To realize this:

- i) The relevant Dean/Director shall monitor School/Institute performance against their research plans on the basis of agreed criteria and will advise the DVC (ARE) on the outcome of this process;
- ii) The research performance of individual academic staff shall be monitored and evaluated as part of the staff development process;
- iii) Staff members of the University shall be required to supply details of their research undertakings and outputs on annual basis to their Dean/Director who will pass the information to the DVC (ARE) through the Registrar PRI; and
- iv) The Registrar PRI shall publish an annual list of staff/students and their publications in the annual research booklet.

### 7.2 Policy Amendments and Review

The Research, Extension and Innovation Policy shall be reviewed every 5 years. It shall be amended whenever the need arises.

THIS RESEARCH POLICY IS EFFECTIVE FROM THIS 15<sup>TH</sup> DAY OF APRIL  
2019.



SIGNED.....  
COUNCIL CHAIRPERSON



**CONTACT:**

Technical University of Mombasa (TUM)  
Tom Mboya Street Tudor,  
P. O. Box 90420 - 80100,  
Mombasa - Kenya.

Tel: (254) 41-2492222/3,  
Fax: (254) 41- 2495632,  
Mobile: (+254) 0733 -955377 | 020 8095365 | 020 8095368 | 020 8095371  
E-mail : [vc@tum.ac.ke](mailto:vc@tum.ac.ke)  
Website: [www.tum.ac.ke](http://www.tum.ac.ke)



TUM IS ISO 9001: 2015 CERTIFIED

*A Centre of Excellence*