MUHIMBILI UNIVERSITY OF HEALTH AND ALLIED SCIENCES

MUHAS RESEARCH EXCELLENCE AWARD GUIDELINES

JANUARY 2022

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LIST OF ABBREVIATIONS

DVC-ARC	Deputy Vice Chancellor – Academic, Research and Consultancy
MUHAS	Muhimbili University of Health and Allied Sciences
PhD	Doctor of Philosophy degree
REA	Research Excellence Award
TCU	Tanzania Commission for Universities
USD	United States Dollars
UREASC	University Research Excellence Awards Selection Committee

KEY DEFINITIONS

Early career faculty/ researcher[1]

Is an individual who is within five years of the award of their PhD or equivalent professional training, or an individual who is within six years of their first academic appointment, and in the context of these guidelines a rank of an Assistant Lecturer/Assistant Librarian/Assistant Research Fellow or Lecturer/Librarian/Research Fellow.

Mid career faculty/researcher

Is an individual who is within 5-10 years from the award of PhD or with equivalent professional standing, in these guidelines academic rank not higher than a Senior Lecturer/Senior Librarian/ Senior Research Fellow.

Senior career/faculty researcher

A senior research, with more than 10 years experience from the award of PhD, of the academic rank of Associate Professor/Associate Research Professor /Research chairs/ Emeritus/Emerita professor and who have demonstrated a record of exceptional research achievements throughout their career at the University and have received national and/or international peer acclaim for their research within the last five years.

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[1] **Arts and Humanities Research Council**, a British research council supporting research and postgraduate study in the arts and humanities.

1. INTRODUCTION

Universities worldwide including Muhimbili University of Health and Allied Sciences (MUHAS) engage in research as one of the core functions, together with teaching, public service provision and consultancy. Most universities engage in all core functions, however, some universities commit heavily towards research making it a central part of the university's mission.

The MUHAS vision underscores the need to ensure high quality teaching, health research and public service provision. Quality health research requires resources in terms of state of art facilities like well equipped laboratories, financial resources and well trained and highly motivated human resource. Research in most universities and research institutions in low and mid income countries depend largely on grants from research funding organizations. Thus, most of the research projects at MUHAS are dependent on grants from various research funding sources and are obtained through grant applications by hard-working, high-spirited faculty.

Like other countries Tanzania wishes to have her academic institutions linked to the global academic system of science and scholarship, so that they can participate effectively in knowledge creation and dissemination. In line with this MUHAS has embraced the need for establishing research collaborations with national, regional, and international research partners. MUHAS desires to become a research-intensive university for the conduct of demand driven quality health research that would generate implementable and impactful solutions and contribute towards successful implementation of our national development frameworks.

2. PURPOSE

The guidelines are intended to recognize and encourage academic staff for their outstanding accomplishments in conducting research that is of major importance in their disciplines and who have made significant contribution in advancing knowledge and research outcomes. They cover the procedures and processes related to the processing and selection of academic staff who have excelled in research performance and deserve to be awarded. They are intended to ensure that all individuals who are eligible to be considered for the research awards are treated fairly and in a non-discriminatory manner. These guidelines are also expected to encourage good practices with respect to the conduct of ethically justified and scientifically sound research targeting major health problems of public health significance.

3. CURRENT ASSESSMENT OF RESEARCH PERFORMANCE AT MUHAS

Currently MUHAS has in place a system for research assessment and award. This system is guided by several key University internal and external regulations: 1) MUHAS

Academic Staff Performance Assessment Guidelines[2] (section 3) has set criteria for academic staff promotion and recruitment in which the process of assessment is outlined, starting with submission of the papers, research project description/report to the respective department/unit. The Head assigns it to the evaluators who will assess it against pre-established criteria which include; coverage of subject matter, originality, contribution to knowledge, relevance to the academic discipline of the individual, relevance to his/her own specialty, presentation and the overall quality. Approval and award recommendation meetings are convened at several levels starting with department, schools/directorates to final promotion award by the Appointment and Human Resource Management Committee (for promotions up to the level of Seniour Lecturer/Senior Research Fellow) and by the University Council (for Professorial promotions).

Other assessments and awards are considered for appointment of emeritus/emerita professor (see the internal regulation ''Rules for recognition of MUHAS retired and professors as "Professor emerita/emeritus''[3]" and research chairs[4]). Apart from internal regulations, MUHAS has its assessment and promotions aligned to external regulations issued by Tanzania Commission for Universities (TCU) via Quality Assurance General Guidelines and Minimum Standards for Provision of University Education in Tanzania[5]. In this guidance, section 2.12 of Guidelines for Staff Performance Review and Promotion, and section 2.13 of Guidelines for reviewing publications; both consider assessment of research output in form of scholarly publications as a criterion for promotion into next academic rank. This is a clear indication of a scenario taking consideration of research evaluation to feed into award criteria for promotion. Further MUHAS in its scheme of service for academic staff (Section M), has set criteria of consideration for various academic ranks where evaluation of published research output is outlined.[6]

4. BENCHMARKING OF PRACTICES FOR ASSESSMENT AND REWARDING RESEARCH EXCELLENCE

Many universities have a system of awarding staff/faculty (at the level of Research Fellow, Lecturer, Senior Research Fellow, Senior Lecturer, Associate Professor, Professor or Professorial Research Fellow, or a team comprising such individuals). The

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[2] MUHAS Muhimbili University of Health And Allied Sciences. Academic Staff Performance Assessment Guidelines. 2009; https://www.muhas.ac.tz/wp-content/uploads/2021/01/1498235327-Academic-staff-Performance-Assessment-Guidelines-2009.pdf. Accessed 13/02/2021, 2021.

[3] https://www.muhas.ac.tz/wp-content/uploads/2021/01/Rules-for-Professor-Emeritus-MUHAS-15.02.2020-.pdf accessed 13/02/2021

[4] HAS Muhimbili University of Health And Allied Sciences. Research Chairs Policy and Guidelines. 202o; https://www.muhas.ac.tz/uploads/documents/en/1594734870-Research%20chairs%20Policy.pdf. Accessed 13/02/2021, 2021

[5] Universities Tanzania Commission for. Quality Assurance General Guidelines and Minimum Standards for Provision of University Education in Tanzania. 2014;
https://www.tcu.go.tz/sites/default/files/QA%20GUIDELINES%20AND%20STANDARDS.pdf. Accessed 13/02/2021, 2021.

[6] Muhimbili University of Health and Allied Sciences. SCHEME OF SERVICE FOR ACADEMIC STAFF 2013. 2013; Guideline. Available at: https://www.muhas.ac.tz/wp-content/uploads/2020/09/1498236512-Scheme-of-Service-for-MUHAS-Academic-Staff-2013.pdf. Accessed 13/02/2021, 2021.

research awards aim at promoting research and give recognition to outstanding performance of individual researchers or research groups/ collaborators. The awards are usually presented on an annual event including a dedicated university research day. These awards are usually categorized by different levels of staff career development (early, mid, and senior career development, lifetime achievement and public impact) and research disciplines (thematic areas). The awards are usually in monetary forms such as cash, check, money order, and direct deposit or any item that can be readily converted to cash, such as savings bonds. Non-monetary recognition awards are also provided, which may include plaques; trophies; certificates; pencils, pens, and desk items; cups and mugs.

The research performance criteria for awards are diverse with wide variations between institutions. The criteria of selection are mainly in outstanding scholarly achievement; including the discovery and dissemination of new knowledge, the development of innovative technology, or the development of concepts that lead to significant advances in activities of the University.

Usually, these awards are named after scientists/researchers with the outstanding performance in the field, have clear aims, target groups and selection process. Many universities exclusively award permanent staff. For other universities, highly performing adjunct or visiting researchers who have been at that institution for at least two consecutive years may be considered for research performance award.

5. RATIONALE FOR ASSESSMENT AND REWARDING RESEARCH EXCELLENCE

Research at universities is very important for various reasons. It is the main avenue for generation of new knowledge. Undergraduate and postgraduate students who engage in research benefit from up-to-date knowledge and conceive ideas that will help them progress in their disciplines and subjects of interest. It is also acknowledged that academic staff who take part in research play an active role in advancement of knowlege in their fields and gain valuable insight into their particular subject areas. Cutting-edge research can help academic staff become stimulated and challenged to learn more. Indeed, in addition to knowledge generation, university research helps teachers to be lifelong learners.

Given the need to strengthen research at MUHAS in line with the university vision and mission, and the aspirations of the university to engage in global research collaborations and making the most from the pool of researchers at MUHAS, it is considered prudent to reward deserving faculty with research excellence awards. It is expected that this will contribute towards motivation of researchers and consequently increase research quality, volume and output at the university. In order to ensure that the awardees are properly, fairly and objectively selected it is necessary to have guidelines in place to standardize the process.

6. GUIDELINES FOR ASSESSMENT OF RESEARCH EXCELLENCE AWARD

Applications for faculty research excellence awards (REA) will consider the following categories and type of awards offered by MUHAS. These may change from time to time as circumstances dictate and as approved by the University:

6.1.1 Early career faculty/ researchers and scholars award

Award in the early career category is conferred annually to a faculty at Assistant Lecturer/Assistant Librarian/Assistant Research Fellow- to Lecturer/Librarian/Research Fellow positions. The basis of this award is recognition of early outstanding research achievement (with emphasis given to achievement during the nominee's appointment at the University), scholarship, and creative activity. This category of award recognizes achievement during the previous three years and is valued at Tanzanian shillings 1,000,000 (One million).

6.1.2 Mid-career faculty/ researchers and scholars award

Award in the mid-career category is conferred annually to a faculty at Post-doctoral Senior Lecturer/Senior Librarian/Senior Research Fellow position. The basis of this award is outstanding scholarly achievement that enhances the understanding, development and well-being of individuals and society including the discovery and dissemination of new knowledge, the development of innovative technology, or the development of concepts that lead to significant societal advances. The award recognizes achievement during the previous five years and is valued at Tanzanian shillings 1,000,000 (One Million).

6.1.3 Senior career faculty/researchers and scholars award

Award in the established category is conferred annually to a faculty at professorial position. The basis of this award is recognition of faculty who have demonstrated a record of exceptional research achievements throughout their career at the University and have received national and/or international peer acclaim for their research within the last five years. The award is valued at Tanzanian shillings 1,000,000 (One Million).

The monetary amounts are tokens of recognition that may be used by the awarded researchers as they see fit. In addition each awardee will also receive a plaque with the award recipient's name, the year and type of the award as well as a framed certificate of recognition from the MUHAS Vice Chancellor.

6.2. Proposed Sources of Funds for Awards

The following are potential sources of funds for the research excellence awards:

1. A research excellence fund to be established as a strand from the ethical clearance fees submitted to the IRB board in the Directorate of Research and Publications.

2. Special grants that provide for dedicated amount of the budget to motivate researchers.

6.3 Eligibility

6.3.1 General

a. Tenured academic staff who has served the University on a full-time basis for a minimum of three consecutive years. Adjunct or visiting researchers who has been at MUHAS for at least three consecutive years may be considered for research performance award if he/she has demonstrated outstanding research performance during discharge of their duties at the University.
b. Must not have received MUHAS REA of any category in the past three years
c. Staff has the rank of Assistant Lecturer and above.
d. Having conducted research registered at the University is an added advantage.
e. Has good professional conduct according to OPRAS forms and available information from the Directorate of Human Resource Management.

6.3.2 Specific

a. For the Early career researchers and scholars award the staff should be of the rank of Assistant Lecturer to Lecturer.
b. For the Mid-career researchers and scholars award category the staff should be a Post PhD Senior Lecturer.
c. For the Senior career researchers and scholars award the staff should have a professorial rank.

6.4 Application for the research excellence award

a. Following a call from the office of Deputy Vice Chancellor responsible for Academic, Research and Consultancy (DVC-ARC) for application through the Deans of Schools and Directors of Academic Institutes, Library Services and ICT. Staff wishing to be considered for eligibility for REA shall send their applications to their respective Heads of Departments. Heads of Departments and Dean/Director of Academic Insititutes and Directorates shall ensure that identified members considered to be worthy of the recognition submit their applications for due consideration.

b. The applicant shall be required to submit a portfolio containing the following:

(i) A cover page
The cover page that should include name, academic rank, Department and School/Academic Institute of the candidate and the research award category applied for.

(ii) Application letter
Application letter should introduce the candidate and provide a concise outline describing how the candidate meets the nomination criteria for the award. It should highlight the originality, significance and impact of the candidate's contributions to research, scholarship, and creativity in his or her field within the scope of the research award category that the candidate wishes to be considered in. The letter should be 10 pages maximum, with text of New Times Roman minimum font size of 12 point.

(iii) Detailed appraisal

A well-written detailed appraisal that explicitly demonstrate that the candidate's work is both original and significant and impactful in the candidate's field based on the stage of their career. Areas to be considered in establishing impact may include research awards (grants); academic and professional prizes; honours; fellowships and scholarships; election to a national or international scholarly bodies; service on advisory panels; publication and peer-review of manuscripts in high impact factor journals; exhibitions and demonstrations for at least three consecutive years. The detailed appraisal should not be more than 1,000 words. It should be written clearly in a non-technical, user friendly style.

(iv) Curriculum vitae

An up-to-date copy of the candidate's professional record or curriculum vitae.

(vi) Copies of publications/patents/copyrights and creative work

Copies of publications and /or creative work that reflects the applicant's excellence in research, scholarship, and creative activity, research award letters from granting institutions.

(vii) Additional materials

The University organs responsible for processing the REA have the right to request submission of additional materials in support of an application for their consideration.

6.5 Assessment of applications for REA

6.5.1 Assessment process

a. The applicant should submit his/her application portfolio to the Head of Department.

b. The Head of Department shall constitute a Departmental committee that shall conduct a preliminary assessment of the applications for completeness suitability of the applicant for consideration for the different research award categories

c. The Head of the departments shall compile a report of the Committee's deliberations and provided scores for each applicant and every research award category using the assessment tool and submit to the respective Dean of School or Director of academic institute.

d. The Dean of School or Director of academic institute or directorate shall establish and be the Chairperson of an assessment panel comprising of at least four senior academic staff, one of which is independent of the School, Institute or Directorate) for the purposes of reviewing proposed persons to be recommended for award. The panel should, as much as possible, ensure gender balance.

e. The Dean of School or Director of academic institute will receive the applications and their scores using the respective tools for each award category as shown in Appendix 1, write a detailed report of the assessment

and deliberation process for all applicants, and recommend all those applicants that have scored more than 50% per research award category for further considerations. This report and all submitted applications shall be submitted to the DVC-ARC.

f. The School, Academic Institute or Directorate panel for assessing REA applications shall provide feedback to all applicants not recommended for further processing providing findings from the conducted assessments and deliberations.

g. The DVC-ARC shall establish a University Research Excellence Awards Selection Committee (UREASC) with the requisite expertise, which shall receive and discuss the application assessment reports from the Deans/Directors of Academic Institute and Directorate.

h. UREASC shall make and independent assesment of the recommended applicants for REA as per the selection criteria, select the deserving candidates (a minimum score of 75%) for the awards and submit the recommendation to the DVC-ARC for subsequent tabling and discussion by the University Senate.

i. The University Senate shall make the final approval of the winners of the awards.

j. The School/Academic Institute or Directorate panel for assessing REA applications shall assess the applications using the respective tool for each award category as shown in Appendix 1, write a detailed report of the assessment and deliberation process for all applicants, and recommend one applicant per research award category. This report shall be submitted to the DVC-ARC.

k. The School, Academic Institute or Directorate panel for assessing REA applications shall provide feedback to all applicants not recommended for further processing providing findings from the conducted assessments and deliberations.

l. The DVC-ARC shall establish a University Research Excellence Awards Selection Committee (UREASC) with the requisite expertise, which shall receive and discuss the application assessment reports from the Deans/Directors of Academic Institute and Directorate.

m. UREASC shall make and independent assesment of the recommended applicants for REA as per the selection criteria, select the deserving candidates for the awards and submit the recommendation to the DVC-ARC for subsequent tabling and discussion by the University Senate.

n. The University Senate shall make the final approval of the winners of the awards.

6.5.2 Assessment criteria

Assessment will be done at three levels; Departmental Committee; School, Academic Institute or Directorate Assessment Committee for REA and UREASC using the appended UREASC tools. The following key areas will be assessed and scored.

a. Originality of the research endeavours i.e. uniqueness of transformative nature of work
b. Relevance of research to the candidates field of specialisation
c. Significant publications in high impact journals, conference proceedings, or books
d. Sustained record of research publications and contributions as a reviewer in peer-reviewed journals
e. Record of presenting at national and international conferences
f. National and international research awards and other forms of honorary recognition of research accomplishments
g. Graduate students supervised by the candidate and other forms of professional mentorship
h. Research grants and fellowships received over the course of the candidates carer
i. Research work that has had an influence beyond academia i.e. public policy, professional practices
j. Significant technology innovation with patents and/or licensing

6.6 Awarding procedure
a. Winners of REA will be informed of their selection and their names will be posted in the list for University Academic and REA winners.
b. REA will be conferred during the Annual Academic Prize giving ceremony or during Annual MUHAS Scientific Conference and will be synchronized with the University almanac.

7. GUIDELINES MANAGEMENT

7.1 Responsible Office
Office for the Directorate of Research and Publications

7.2 Status of the Guidelines
These are new Guidelines.

7.3 Key Stakeholders
The main stakeholders of these guidelines are:
a. All MUHAS academic staff
b. Heads of Academic Departments
c. Deans and Directors
d. Student researchers
e. MUHAS research collaborators
f. Associated teaching hospitals

7.4 Approval and Commencement
The MUHAS Guidelines for awarding Research Excellence were approved by the Council at it's ……. meeting held on………………… and come into force immediately

thereafter.

7.5 Related Policies and Guidelines
a. MUHAS Research Policy
b. MUHAS Research Agenda
c. Guidelines and Tools for Assessment and Monitoring of Teaching at MUHAS
d. MUHAS Academic Staff Performance Assessment Guidelines

7.6 Related Documents
a. MUHAS Charter
b. The harmonized scheme of service for academic staff in public universities and constituent colleges

7.7 Next Review Date
These guidelines are intended to be evolutionary in nature and will be reviewed after every three years and revised in light of experience gained.

7.8 Owner of the MUHAS Guidelines for Awarding Research Excellence
The University Council shall own these MUHAS Guidelines for awarding Research Excellence.

7.9 Contact Person
Any queries regarding the content of these Guidelines or need for further clarification should be directed to:
The DVC-ARC, Muhimbili University of Health and Allied Sciences,
9 United Nations Road Upanga West
P.O. Box 65001, Dar es Salaam Tanzania

Appendix 1: GENERAL ASSESSMENT TOOL FOR RESEARCH EXCELLENCY AWARD SELECTION

A: Distribution of Scores for Early Career Researcher:
Research volume 50%; Research output 50%

A. GENERAL QUALIFICATIONS

S/N	Degree name	Abbreviation	Awarding institution	Discipline	Year awarded
1					
2					
3					

B: RESEARCH VOLUME (50%)
B1: Proposals and programs (30%)

Criteria	Role	Number	Unit score	Total score
Developed research proposals and submitted for funding	Lead researcher		4	
	Co-researcher		2	
Funded research proposals	Lead researcher		4	
	Co- researcher		2	
Research projects conducted	Completed		4	
	On-going		2	
National Program involvement	Lead		4	
	Co- researcher		2	
Consultancies conducted	Lead		4	
	Co- researcher		2	

B2: Grants won (20%)

Grant value (USD)	Role	Number	Unit score	Total score
5,000-20,000	Lead researcher		3.5	
	Co-researcher		2	
>20,000-50,000	Lead researcher		4	
	Co-researcher		2.5	
>50,000	Lead researcher		5	
	Co-researcher		3	

C. RESEARCH OUTPUT (50%)

C1: Journal publications (30%)

Paper category	Authorship position	Number	Unit score	Total score
Paper published in Journals with impact factor (IF) ≥ 3	First Author		6	
	Last Author		5	
	Co-Author		3	
Paper published in Journals with IF 1-3	First Author		5	
	Last Author		3	
	Co-Author		2	

Paper published in Journals with IF < 1	First Author		3	
	Last Author		2	
	Co-Author		1	

C2: Book publications (5%)

	Authorship position	Number	Unit score	Total score
C 2.1 Book author	First Author		1.5	
	Last Author		0.5	
	Co-Author		0.5	
C 2.2 Book Chapter	First Author		1.5	
	Last Author		0.5	
	Co-Author		0.5	

C3: Other scholarly publications (10%)

	Authorship position	Number	Unit score	Total score
C3.1 Published abstracts	First Author		1.5	
	Last Author		1	
	Co-Author		0.5	
C3.2 Conference proceedings	First Author		1	
	Co-author		0.5	
C3.3 Technical reports	First Author		1	
	Co-Author		0.5	
C3.4 Outreach publications (Booklets, guidelines)	First Author		1.5	
	Co-Author		0.5	
C3.5 Teaching materials	First Author		1.5	
	Co-Author		0.5	

C4: Capacity building (5%)

	Degree program	Role	Number	Unit score	Total score
C5.1 Human resource development through research training					
C5.1.1 Masters training	MSc/MMed	Supervisor		1	
		Co-Supervisor		0.5	
C.5.2 Infrastructure development					
C5.2.1 Procurement of research equipment and supplies		PI		1	
		Co-PI		1	
C5.2.2 Construction of building		PI		1	
		Co-PI		0.5	

B. Distribution of Scores: Mid Level Researchers
Research volume 45%; Research output 55%

A. GENERAL QUALIFICATIONS

S/N	Degree name	Abbreviation	Awarding institution	Discipline	Year awarded
1					
2					
3					

B: RESEARCH VOLUME (45%)

B1: Proposals and programs (25%)

Criteria	Role	Number	Unit score	Total score
Developed research proposals and submitted for funding	Lead researcher		3	
	Co-researcher		2	
Funded research proposals	Lead researcher		3	
	Co- researcher		2	
Research projects conducted	Completed		3	
	On-going		2	
National Program involvement	Lead		3	
	Co- researcher		2	
Consultancies conducted	Lead		3	
	Co- researcher		2	

B2: Grants won (20%)

Grant value (USD)	Role	Number	Unit score	Total score
5,000-20,000	Lead researcher		4	
	Co-researcher		2	
>20,000-50,000	Lead researcher		4	
	Co-researcher		2	
>50,000	Lead researcher		5	
	Co-researcher		3	

C. RESEARCH OUTPUT (55%)
C1: Journal publications (30%)

Paper category	Authorship position	Number	Unit score	Total score
Paper published in Journals with impact factor (IF) ≥ 3	First Author		6	
	Last Author		5	
	Co-Author		3	
Paper published in Journals with IF 1-3	First Author		5	
	Last Author		3	
	Co-Author		2	
Paper published in Journals with IF < 1	First Author		3	
	Last Author		2	
	Co-Author		1	

C2: Book publications (5%)

	Authorship position	Number	Unit score	Total score
C 2.1 Book author	First Author		2	
	Last Author		0.5	
	Co-Author		0.5	
C 2.2 Book Chapter	First Author		1	
	Last Author		0.5	
	Co-Author		0.5	

C3: Other scholarly publications (5%)

	Authorship position	Number	Unit score	Total score
C3.1 Published abstracts	First Author		0.5	
	Last Author		0.25	
	Co-Author		0.25	
C3.2 Conference proceedings	First Author		0.5	
	Co-author		0.25	
C3.3 Technical reports	First Author		0.5	
	Co-Author		0.25	
C3.4 Outreach publications (Booklets, guidelines)	First Author		0.5	
	Co-Author		0.5	
C3.5 Teaching materials	First Author		1	
	Co-Author		0.5	

C4: Capacity building (10%)

	Degree program	Role	Number	Unit score	Total score
C5.1 Human resource development through research training					
C5.1.1 Masters training	MSc/MMed	Supervisor		1	
		Co-Supervisor		0.5	
C5.1.2 PhD training	PhD	Supervisor		2	
		Co-Supervisor		1	
C.5.2 Infrastructure development					
C5.2.1 Procurement of research equipment and supplies		PI		1.5	
		Co-PI		1	
C5.2.2 Construction of building		PI		2	
		Co-PI		1	

C5: Reviewer and Awards/ Fellowships (5%)

	Number	Unit score	Total score
Reviewer category			
Reviewer in International journals		1.5	
Reviewer in Local journals		1	
Awards/Fellowship received			
Awards/Fellowship-International		1.5	

Awards/Fellowship -Local		1	

C: Distribution of Scores: Senior Level Researchers
Research volume 40%; Research output 60%

A. GENERAL QUALIFICATIONS

S/N	Degree name	Abbreviation	Awarding institution	Discipline	Year awarded
1					
2					
3					

B: RESEARCH VOLUME (40%)
B1: Proposals and programs (20%)

Criteria	Role	Number	Unit score	Total score
Developed research proposals and submitted for funding	Lead researcher		3	
	Co-researcher		1	
Funded research proposals	Lead researcher		3	
	Co- researcher		2	
Number of Research projects conducted	Completed		3	
	On-going		2	
National Program involvement	Lead		2	
	Co- researcher		1	
Consultancies conducted	Lead		2	
	Co- researcher		1	

B2: Grants won (20%)

Grant value (USD)	Role	Number	Unit score	Total score
5,000-20,000	Lead researcher		3	
	Co-researcher		2	
>20,000-50,000	Lead researcher		4	
	Co-researcher		3	
>50,000	Lead researcher		5	
	Co-researcher		3	

C. RESEARCH OUTPUT (60%)

C1: Journal publications (35%)

Paper category	Authorship position	Number	Unit score	Total score
Paper published in Journals with impact factor (IF) ≥ 3	First Author		7	
	Last Author		5.5	
	Co-Author		3.5	
Paper published in Journals with IF 1-3	First Author		5.5	
	Last Author		3.5	
	Co-Author		2.5	
Paper published in Journals with IF < 1	First Author		3.5	
	Last Author		2.5	
	Co-Author		1.5	

C2: Book publications (5%)

	Authorship position	Number	Unit score	Total score
C 2.1 Book author	First Author		2	
	Last Author		0.5	
	Co-Author		0.5	
C 2.2 Book Chapter	First Author		1	
	Last Author		0.5	
	Co-Author		0.5	

C3: Other scholarly publications (5%)

	Authorship position	Number	Unit score	Total score
C3.1 Published abstracts	First Author		0.5	
	Last Author		0.25	
	Co-Author		0.25	
C3.2 Conference proceedings	First Author		0.5	
	Co-author		0.25	
C3.3 Technical reports	First Author		0.5	
	Co-Author		0.25	
C3.4 Outreach publications (Booklets, guidelines)	First Author		0.5	
	Co-Author		0.5	
C3.5 Teaching materials	First Author		1	
	Co-Author		0.5	

C4: Capacity building (10%)

	Degree program	Role	Number	Unit score	Total score
C5.1 Human resource development through research training					
C5.1.1 Masters training	MSc/MMed	Supervisor		1	
		Co-Supervisor		0.5	
C5.1.2 PhD training	PhD	Supervisor		2	
		Co-Supervisor		1	
C.5.2 Infrastructure development					
C5.2.1 Procurement of research equipment and supplies		PI		1.5	
		Co-PI		1	
C5.2.2 Construction of building		PI		2	
		Co-PI		1	

C5: Reviewer and Awards/ Fellowships (5%)

	Number	Unit score	Total score
Reviewer category			
Reviewer in International journals		1.5	
Reviewer in Local journals		1	
Awards/Fellowship received			
Awards/Fellowship-International		1.5	
Awards/Fellowship -Local		1	