NATIONAL COMMISSION FOR SCIENCE AND TECHNOLOGY (MALAWI)



PROCEDURES AND GUIDELINES FOR THE CONDUCT OF RESEARCH IN ENERGY, INDUSTRY AND ENGINEERING IN MALAWI

NATIONAL COMMISSION FOR SCIENCE AND TECHNOLOGY

PROCEDURES AND GUIDELINES FOR THE CONDUCT OF RESEARCH IN ENERGY, INDUSTRY AND ENGINEERING IN MALAWI

NCST Secretariat
Private Bag B-303
Lingadzi House, City Centre
Lilongwe 3.

Tel: +265 1 771 550/ 774 189/ 774 869

Fax: +265 1772431

E-mail: <u>directorgeneral@ncst.mw</u>
Website: <u>http://www.ncst.mw</u>

JANUARY 2015

Table of Contents

	IYMS AND ABREVIATIONS	
	ARY	
1.0	INTRODUCTION	
2.0	GOAL	
3.0	OBJECTIVES OF THE PROCEDURES AND GUIDELINES	
3.1 3.2	GENERAL OBJECTIVE	
4.0	GUIDING PRINCIPLES	2
5.0	APPLICATION OF THE PROCEDURES AND GUIDELINES	3
5.1 5.2 5.3 5.4 5.5 5.6	BASIC RESEARCH APPLIED RESEARCH EXPERIMENTAL DEVELOPMENT RESEARCH REVERSE ENGINEERING SCIENTIFIC EXPEDITION CONSULTANCIES	3
6.0	SCOPE	
7.0	AFFILIATION TO LOCAL INSTITUTIONS	
8.0	REGISTRATION OF RESEARCH PROJECTS	
9.0	FEES	
10.0	RESEARCH IN PROTECTED AREAS	
11.0	ETHICAL REQUIREMENTS	
12.0	CAPACITY BUILDING	6
13.0	REVIEW OF RESEARCH PROPOSALS	6
14.0	FORMAT FOR RESEARCH PROPOSALS	7
15.0	RESEARCH PROJECTS SUPPORTED BY NCST	7
16.0	CRITERIA FOR VETTING RESEARCH PROPOSALS	8
17.0	CONFIDENTIALITY	10
18.0	LIABILITY COVERAGE OF MEMBERS	10
19.0	INTELLECTUAL PROPERTY RIGHTS	10
20.0	MONITORING AND EVALUATION	11
20.1 20.2 20.3	PROGRESS REPORTSFIELD VISITSINSTITUTIONAL ANNUAL RESEARCH MEETINGS AND FIELD DAYS	11
21.0	FINAL REPORT	12
22.0	OWNERSHIP OF DATA GENERATED ERROR! BOOKMARK NOT DEFINE	D
23.0	DISSEMINATION OF RESEARCH RESULTS	13
24.0	ANNEXES	15
Anne Engi	EX 1: LIST OF MEMBER ORGANISATIONS FOR THE NATIONAL COMMITTEE ON ENERGY, INDUSTRIAL AND NEERING SCIENCES (NCEIES)	15
	EX 2: SCHEDULE OF FEES	
ANNE	X 3: APPLICATION FORM: FORM NCST/RR1EIE	17

ACRONYMS AND ABREVIATIONS

CPI Co-Principal Investigator

DST Department of Science and Technology

IP Intellectual Property

M&E Monitoring and Evaluation

NCEIES National Committee on Energy, Industrial and Engineering Sciences

NCST National Commission for Science and Technology

NCTT National Committee on Technology Transfer

NGOs Non Governmental Organisations

NRCM National Research Council of Malawi

PI Principal Investigator

R&D Research and Development

RPC Research and Publications Committee

S&T Science and Technology

GLOSSARY

Conflict of Interests – A conflict between the private/personal interests and official responsibilities of a person in a position of trust. The following are examples of a conflict of interests: a member of NCEIES who serves as an investigator on research under consideration by NCEIES; a member who holds a significant financial interest in a sponsor or product under study; a member whose spouse or close relative has the research under review by NCEIES; a member who has any other special form of relationship with the investigator or sponsor of the research interest under consideration if such a relationship is likely to influence decision of the committee.

Local Research Institutions – These are institutions registered under the Laws of Malawi with mandate to undertake research and development activities in Malawi. These institutions include but not limited to Government Departments, Local Assemblies, NGOs, Public Institutions and Private Institutions.

National Interest Studies – These are studies that require particular attention because of their sensitive, political, socio-economic, environmental, and safety implications. Examples may include but not limited to studies involving; radioactive materials, where safety issues are fully unknown, high risk studies.

Sustainable Development – Is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

1.0 INTRODUCTION

The National Commission for Science and Technology (NCST) was established by the Science and Technology Act Number 16 of 2003 to advance science and technology in Malawi. The Commission took over the functions of the then National Research Council of Malawi (NRCM).

The mandate of the Commission is to advise Government and other stakeholders on all science and technology matters in order to achieve a science and technology led development. The Commission derives its authority from the Minister responsible for Science and Technology.

In undertaking its functions, the Commission is guided by constitutional principles such as those relating to freedom of access to information, academic freedom, freedom of expression and other related principles (see the Republic of Malawi Constitution, 1999 Chapter IV); and the National Science and Technology Policy which provides for all types of research (natural/basic and social sciences and the arts).

Under Section 11 (1) of the Science and Technology Act, the Commission established several committees through which it works. One of the committees established is the National Committee on Energy, Industrial and Engineering Sciences (NCEIES) which is mandated to promote, support, coordinate, and regulate research and development in the fields of energy; mining; engineering; industry; manufacturing; transport; housing; and other physical infrastructure. The full list of member organisations for the NCEIES is provided in **Annex 1**.

The then National Research Council of Malawi (NRCM) published Procedures and Guidelines (revised 2002) to provide the general framework and guidelines for the conduct of research in Malawi. It was however, realized that specific guidelines and procedures, at a national level, for the conduct of research in the fields of energy, mining, engineering. industry, manufacturing, transport, housing, and other infrastructure were required. It is, therefore in line with this need that the Commission through the National Committee on Energy, Industrial and Engineering Sciences (NCEIES) has developed Procedures and Guidelines for the conduct of research in the Energy, Industry and Engineering Sectors in Malawi. It is, however, noted that where health, social, agriculture and natural sciences research within these sectors is envisaged, the NCST's appropriate committees would be expected to perform a coordinatory and regulatory role.

2.0 GOAL

The overall goal of these procedures and guidelines is to promote, support, coordinate, and regulate research and development in the fields of energy, mining, engineering, industry, manufacturing, transportation, housing, and other physical infrastructure.

3.0 OBJECTIVES OF THE PROCEDURES AND GUIDELINES

3.1 General Objective

These procedures and guidelines have been formulated to facilitate the conduct of research and development in Malawi; to enhance the quality of research in Energy, Industry and Engineering, in order to achieve competitiveness and relevance at national, regional and international levels; and to provide a national research and development coordination framework and oversight mechanism.

3.2 Specific Objectives

Specifically the guidelines and procedures shall help the National Commission for Science and Technology, Research Institutions and the National Committee on Energy, Industrial and Engineering Sciences to:

- Regulate the conduct of R&D by ensuring proper collection, acquisition, storage, management, transfer and utilisation of research material and/or information;
- Promote originality, complementarity and professionalism in R&D activities in order to avoid unnecessary duplication; through appraisal of projects and project proposals for scientific/ technological, professional and ethical merits;
- Register R&D activities carried out in Malawi, secure results of the R&D activities and provide a one-stop centre for information on such work and their potential application;
- Provide a framework for collaboration among researchers within the country; and with international researchers;
- Promote and support capacity building and encourage the development of sectoral programmes and research agenda; and
- Provide mechanisms for monitoring and evaluation of research projects and activities.

4.0 GUIDING PRINCIPLES

- Research undertaken in Malawi shall be demand driven and/ or relevant to meeting the needs of the society; and contributing to the sustainable development;
- Multi-disciplinary research projects and services shall be particularly promoted;

- R&D institutions and researchers shall aim at achieving excellence in research and service rendered to society;
- R&D institutions and researchers shall demonstrate that they are accountable through quality assurance systems;
- NCST and R&D institutions shall provide a conducive environment for conducting research;
- R&D institutions shall ensure that there is an effective system for documenting all research projects and grants given to researchers and for monitoring the completion of reports and agreed timelines and budgets for these research projects;
- Research shall be conducted in conformity with the norms of ethical responsibility and IP rights; and
- Researchers shall be motivated through various incentives.

5.0 APPLICATION OF THE PROCEDURES AND GUIDELINES

These procedures and guidelines shall be applicable to:

5.1 Basic Research

Basic or Pure research is experimental or theoretical work whose primary or ultimate objective is a better understanding of whatever phenomena are involved, including the discovery or elucidation of general principles and laws. This type of research is found to lead to discoveries of practical importance.

5.2 Applied Research

Applied research is an investigation that is pursued with the main objective of finding solutions of practical problems.

5.3 Experimental Development Research

Experimental development is systematic work, drawing on existing knowledge gained from research and/or practical experience, which is directed to producing new materials, products or devices, to installing new processes, systems and services, or to improving substantially those already produced or installed.

5.4 Reverse Engineering

Reverse engineering is the process of discovering the technological principles of a device, object, or system through analysis of its structure, function, and operation. It often involves taking something (e.g., a mechanical device, electronic component, software program, or biological, chemical, or organic matter) apart and analyzing its functionality in detail to be used in maintenance, or to try to make a new device or

program that does the same thing without using or simply duplicating (without understanding) the original.

5.5 Scientific Expedition

A scientific expedition is an organised tour of scientific interest usually for short periods. The tour may include observation of some phenomena but does not include generation of knowledge or data on systematic basis that would normally fall under proper research. Where there is doubt as to whether a project is an expedition or a research project, it must be treated as a research project.

5.6 Consultancies

Certain types of consultancies will be treated as research projects. These are consultancies that are research oriented and generate new information.

6.0 SCOPE

These Guidelines and Procedures apply to all individuals; research and academic institutions; government departments; private companies/enterprises; non-governmental and Inter-governmental organizations; international agencies; and community based organizations carrying out research and development in Malawi in energy, mining, engineering, processing, manufacturing, transportation, housing, physical infrastructure and other related areas.

7.0 AFFILIATION TO LOCAL INSTITUTIONS

All foreign researchers intending to conduct research in Malawi shall be affiliated to Malawian research institutions to promote collaboration, improve on capacity building and exchange of expertise. Affiliation constitutes a contract between the researchers and the affiliating institution. The latter will ensure that the researcher carries out investigations according to the agreed research methods and will monitor progress of the project. The affiliating institutions may stipulate their own terms and conditions including the charging of affiliating fees.

To facilitate the affiliation criteria, NCST shall compile up-to-date directories and bibliographies of all institutions (public, parastatal, private and Non Governmental Organisations (NGOs) affiliated to it.

In situations whereby local individual(s) or non research organisation (that are not affiliated to research institutions) intends to undertake research or has hired a consultant to undertake research on its behalf, the individual(s)/ institution shall submit research proposal directly to NCST's committee on energy, industry and engineering which shall review and consider registering the research proposal.

8.0 REGISTRATION OF RESEARCH PROJECTS

Researchers are required to submit research proposals in Energy, Industry and Engineering to the NCEIES through NCST secretariat for registration. Research proposals submitted to NCEIES for registration should be fully developed and accepted by the relevant institution. Draft research proposals shall **NOT** be accepted for registration. Where a project is undertaken by researchers from more than one institutions; then the Principal Investigator/ or institution from which the Principal Investigator comes from shall be responsible for the registration of the project with NCEIES.

An application for a research proposal registration shall be made by the lead researcher i.e. the Principal Investigator (PI) or whereby applicable, a Co-Principal Investigator (CPI), to the NCEIES using research application forms obtained from the NCST. The procedure and requirements for submission of an application are as follows:

- i. One copy of the research proposal shall be submitted to NCST along with a copy of a registration application form completed by the Principal Investigator only or where applicable, a co- Principal Investigator.
- ii. The registration application form "NCST/RR1EIE", a copy of which is provided in Annex 3, may be collected physically from the NCST offices, or downloaded from the NCST website or be mailed electronically, on request.
- iii. All relevant supporting documents (for example, ethics approvals, institutional support letters, recommendations, etc) shall be attached to the application form.
- iv. Where a research project requires ethical approval, it should be obtained prior to submitting the research proposal to the NCST.
- v. The applicant shall be informed of the status of his/her application within **fourteen** (14) working days from the date of acknowledgement of receipt of application by NCST.

9.0 FEES

Fees shall be charged for review of research proposals by NCEIES payable to NCST. A non-refundable application fee as stipulated in **Annex 2**, payable in cash, crossed cheque or bankers order to the Commission shall be made on submission of application.

Such fees shall be determined and revised by the NCEIES from time to time based on the categories of researchers. The money realised from the fee is to be used for: organising review meetings for the committee; continuing education for members of the committee; compliance and inspections of the approved research project; dissemination of research results of the approved studies.

10.0 RESEARCH IN PROTECTED AREAS

Researchers intending to carry out research in protected areas such as wildlife reserves, forest reserves or other conservation sites are required to obtain access permits from the relevant agencies and the National Committee on Agriculture and Natural Sciences prior to submitting their research project proposals to NCEIS for registration.

11.0 ETHICAL REQUIREMENTS

Research Ethics protects research participants from potential harm or injury by minimizing the social, physical, emotional and other risks associated with the research. Research Ethics also protects the researcher and ensures that the science developed of the research has been developed ethically and, therefore, places value on credibility and utility of research results.

Researchers should therefore ensure that all research projects that could affect human beings directly or indirectly have undergone ethics review and satisfy the ethical standards for research involving humans. Researchers are therefore, required to obtain ethical approval before submission to NCEIES from the relevant NCST recognised ethics review committees such as, NHSRC, COMREC, NCRSH and any other NCST recognised ethics committee

12.0 CAPACITY BUILDING

Generally, research projects should have a capacity building component for local personnel and the affiliating institutions. This will depend, however, on the duration, nature and scale of the project.

13.0 REVIEW OF RESEARCH PROPOSALS

Researchers shall be required to submit their research proposals at least two months before commencement of the research work to the NCEIES for registration approval.

- i. R&D institutions shall review their research proposals.
- ii. Research proposals submitted by non research institutions or individuals shall be reviewed by the NCEIES.
- iii. All research proposals of National Interest Studies shall be reviewed by the NCEIES. In the case that there is no expertise from within the NCEIES to review such proposals; the committee may form an ad hoc committee to review and monitor the project.

- iv. Projects that involve the collection of genetic resources (whether plants, animals or humans) and human biological specimens and parts are treated as special projects. These projects shall be reviewed and approved by the relevant committees of/ and or recognised by NCST.
- v. NCEIES shall have a representative on a relevant R&D institution committee dealing with institutional issues on EIES.

14.0 FORMAT FOR RESEARCH PROPOSALS

Research proposals shall generally be prepared according to the guidelines as set out by the relevant R&D institution; however, should contain but not limited to the following:

- i. Project title
- ii. Names of investigators and qualifications (their CVs should be appended)
- iii. Institution of affiliation (local or international)
- iv. Proposed sector
- v. Summary
- vi. Introduction/ literature review
- vii. Justification/ problem statement
- viii. General and specific objectives
- ix. Methodology/Materials and methods
- x. Work Plan (roles and responsibilities, monitoring and evaluation tools)
- xi. Expected outcomes
- xii. Strategies of dissemination of research results
- xiii. References
- xiv. Itemised budget
- xv. Source of funding (secured/ proposed)

15.0 RESEARCH PROJECTS SUPPORTED BY NCST

All research proposals for projects supported by NCST shall be reviewed by the NCEIES. NCST shall issue a contract agreement with the researcher prior to executing the research project. The contract agreement shall include the following:

- i. Project's code number
- ii. Name(s) of researcher(s)

- iii. Name of research institution
- iv. Title of the project
- v. Duration of the project
- vi. Statement indicating number of copies of the final report to be submitted (at least four)
- vii. Statement indicating ability and willingness of the researcher to abide by procedures and guidelines for conduct of research in Malawi
- viii. Signatures and date
- ix. Contract agreement between the institution and the researcher

In addition, the research project proposal should have a version and date, names and brief biographical sketches of the investigators and their institutions of affiliation, data collection instruments and data analysis instruments. The research proposal must be duly signed by the Principal Investigator.

16.0 CRITERIA FOR VETTING RESEARCH PROPOSALS

(General procedure for reviewing of proposals from individuals or non-research institutions or proposals submitted for funding by NCST)

The NCEIES shall review research proposals with the aim of; enhancing consistency of proposals developed by different researchers; ensuring that research and development being carried out is addressing the R&D priorities of the country; *ensuring that R&D carried out complies with these Procedures and Guidelines;* and assessing suitability for funding consideration by NCST.

The committee shall be required to consider the following key issues in reviewing of research proposals:

- i. Scientific merit
- ii. Level of collaboration
- iii. Professional and ethical issues (e.g. confidentiality, prior informed consent, justice etc)
- iv. National benefits (capacity building, patents, conservation of natural resources and knowledge gathering etc)
- v. Monitoring and evaluation
- vi. Dissemination and technology transfer
- vii. Significance/relevance
 - Is the research testing a sound scientific hypothesis, developing a new

technology, seeking to improve or document a new technique, technology or policy?

• How unique, original and innovative is the proposed research?

viii. Literature Review

- Is there adequate data to demonstrate the feasibility or focus of the project?
- Does the proposed project demonstrate awareness of the previous and alternative approaches to the identified problems?

ix. Objectives

Are the specific objectives clear and consistent with the problem statement?

x. Impact

- How relevant/important is the proposed research to the community?
- How does the project increase knowledge?
- Is the research consistent with national goals and aspirations?

xi. Results

- How significant will be the impact of the results?
- What is the probability of success of the project within the time frame?

xii. Research Design and Methodology

- What are the strengths and weaknesses in the design, strategy or methodology?
- Does the work-plan follow the most logical approach?
- Has adequate time been allocated?
- Is the methodology well described, suitable and feasible?
- How will the data be managed and analyzed?

xiii. Budget

- Is the budget adequate and consistent with specified activities?
- What is the partner's contribution?

xiv. Collaboration

- Responsibility and workload of each partner collaborator
- Qualifications (including CVs)

xv. Monitoring and Evaluation

Project work plan and tools (specify)

xvi. Dissemination

• Are proposed strategies viable?

xvii. Resources

• Are the resources (e.g. support staff, laboratory space, equipment and facilities

adequate?)

xviii. Affiliation

• Have affiliation formalities been completed? (not applicable to applications from individuals or non research institutions)

xix. Rating and decision

- What is the panel score (on a scale of 1 to 5)?
- If the average score is greater or equal to 3, the proposal is approved for funding consideration by NCST or approval for registration of proposals from *individuals or* non research institutions
- If the average score is equal to or greater than 2 but less than 3 the applicant may be required to revise and resubmit the proposal
- If the average score is below 2 the proposal shall be rejected outright

17.0 CONFIDENTIALITY

NCST shall receive research proposals in confidence and is shall be responsible for protecting the confidentiality of their submission and contents. The reviewers shall therefore not disclose any information concerning application documents or evaluations to outsiders, nor shall be allowed to use such information to their own benefit or anybody else's benefit or disadvantage. In addition, the reviewers shall not reveal to outsiders that they are assessing the research proposal of a particular researcher.

18.0 LIABILITY COVERAGE OF MEMBERS

NCEIES members shall function as agents of NCST; as such their actions shall be covered by Government of Malawi relevant statutes provided that they perform within the course and scope of their NCEIES responsibilities. This means that in line with the S&T Act Part III Sub Section 14, members of the NCEIES shall not be held personally liable in the course of performing their duties.

19.0 INTELLECTUAL PROPERTY RIGHTS

The NCEIES shall work with relevant committees of NCST and institutions to promote patenting and protection of IP rights of research results. The researcher shall be aware that if an invention has been publicly disclosed, even by the inventor himself, it is not new and not patentable anymore. If research results have the potential for patenting; It is therefore, be important that the researcher temporarily avoid all public disclosure including any article, any written notice, any oral communication (presentation in a conference, discussion with an economic partner) during the patentability's study. The researcher shall request in writing to NCST to delay the release of the research results to

the public until when the research results have been protected.

20.0 MONITORING AND EVALUATION

Research requires an effective monitoring and evaluation (M&E) system that enables the assessment of performance, resource utilisation, impact and effectiveness of a programme. It shall, therefore, be important that a proper M&E system be implemented. The NCEIES shall be responsible for designing appropriate formats for the M&E system. In general, the tools used at this level shall include;

20.1 Progress reports

The NCEIES shall determine the appropriate number of progress reports to be submitted by the researcher during the life cycle of the project. The progress reports shall cover the following:

- Overview of the project
- ii. Objectives of the project
- iii. Stage at which the project is
- iv. Actual activities done and a summary of what has, and has not been accomplished at that stage of the study
- v. Interpretation of new results
- vi. Summarized results including tables and graphs
- vii. Revised plan of activities
- viii. Operational problems, if any, and suggested solutions and whether the project objectives are being addressed
- ix. Likelihood of the success of the project
- x. Financial statement for the period covered by the report showing the budget and expenditure
- xi. An indication of objectives which have not been achieved and indicating reasons.

20.2 Field Visits

Field visits are a very important part of the M&E system as they reveal the situation on the ground and they also provide true reflection of actual progress and practical problems. As such, they shall form an integral part of the institutional monitoring system. The NCEIES shall have access to data and the research premises, field or location of the research project. The NCEIES may, from time to time, visit the research projects sites to ensure compliance with these Guidelines and Procedures and the NCEIES approved research proposals.

The NCEIES shall be required to draw up a schedule of visits and shall appoint a competent monitoring team. The team shall have the original research proposal including its budget and a plan of action. The M&E team shall develop a template that shall be used to undertake the following tasks:

- i. Evaluate progress of the research at each stage in the plan of action
- ii. Examine the relevance of each activity in fulfilling the objectives
- iii. Assess operational problems and solicit solutions on how to overcome them
- iv. Assess whether researchers are complying to approved conventional or standard methodologies as provided for in their research proposals
- Assess whether there are any changes or modifications to the original programme or plan of action and whether these have been explained
- vi. Where ethics apply, to assess whether they have been fully observed and followed
- vii. Assess the application of resources being used e.g. human, financial, equipment, infrastructure and transport
- viii. Assess the degree of participation, involvement and skills development among collaborators
- ix. Assess quality of work
- x. Make specific recommendations

20.3 Institutional Annual Research Meetings and Field Days

The NCEIES and R&D institutions shall organise annual research meetings, seminars, conferences and field days where research projects shall be open for to review by stakeholders.

21.0 FINAL REPORT

It shall be researcher's obligation to submit timely progress reports and final reports of their research projects to the NCST. Researchers shall be free to adopt any format for writing a final report or as approved by the relevant R&D institution, however, the report shall include, but not limited to the following sections:

- i. An executive summary/ Abstract
- ii. Acknowledgement of source (s) of funding or any technical assistance
- iii. A detailed table of contents (including list of figures, tables, abbreviations, acronyms etc)

- iv. An introduction (incorporating the background, problem statement and objectives)
- v. Literature review of what has been locally and internationally achieved
- vi. Materials and methods, indicating use of resources
- vii. Detailed analyzed data
- viii. Results and discussion which shall include details of analysed data, relating the analysed data to the objectives and past findings, establishing trends and explaining the findings.
- ix. Recommendations and conclusions, emphasising take home messages and scope for further work if any
- x. References and
- xi. Appendices containing supporting data that will strengthen the results and findings.

Researchers are encouraged to share their research findings with the communities who participated in their research or with any target group likely to use/benefit from the results of the research.

22.0 MANAGEMENT OF RESEARCH FINDINGS

The researcher (either foreign or local) shall make available to Malawi through NCST at least three copies (two hard copies and one electronic copy) of all research findings. One copy shall be deposited at the National Archives and the other to NCST (together with the electronic copy) besides the affiliating and other relevant sectoral institutions.

23.0 DISSEMINATION OF RESEARCH RESULTS

The dissemination of research results and technologies shall be part and parcel of the system. It needs to be built in from the research proposal stage through to the budgeting system and implementation of any research programme. To ensure that this is achieved, the following guidelines shall be followed:

- The NCEIE in collaboration with the National Committee on Technology Transfer (NCTT) shall ensure that research results reach end-users. This shall be done through publishing circulars and organizing events for specific technologies dissemination.
- ii. Both NCEIES and R&D institutions shall establish a specific budget line on dissemination. This shall become a requirement for each research proposal.
- iii. Institutions shall produce annual reports that will show organisations' setup,

- performance, available resources, summaries of R&D programmes and activities, and results of research projects undertaken during the year. Such reports shall form the basis of the National S&T publication.
- iv. Institutions shall produce occasional papers including research bulletins and circulars; and popular publications with simplified results that may be provided to the media.
- v. Institutions shall develop web-sites and take advantage of the electronic media for features and interviews.
- vi. Institutions shall encourage and support researchers to publish results in recognised local and international journals.
- vii. Institutions shall exhibit technologies at trade fairs and be able to make them available to users.
- viii. Institutions shall organise theme specific S&T conferences/symposia
- ix. Institutions shall compile annual directories of research projects, which shall be made available to NCST.

24.0 ANNEXES

Annex 1: List of Member Organisations for the National Committee on Energy, Industrial and Engineering Sciences (NCEIES)

- i. University of Malawi (The Polytechnic)
- ii. Malawi Industrial Research and Technology Development Centre
- iii. Mzuzu University
- iv. Malawi Institution of Engineers
- v. Malawi Energy Regulatory Authority
- vi. Malawi Confederation of Chambers of Commerce and Industry
- vii. National Construction Industry Council
- viii. Department of Energy Affairs
- ix. Ministry of Transport and Public Infrastructure
- x. Technical, Entrepreneurial and Vocational Education and Training Authority
- xi. Ministry of Agriculture, Irrigation and Water Development
- xii. Malawi Bureau of Standards
- xiii. Lilongwe University of Agriculture and Natural Resources Bunda College
- xiv. Department of Agriculture Research Services (Chitedze Research Station)
- xv. Department of Science and Technology
- xvi. University of Malawi (Chancellor College)

Annex 2: Schedule of Fees

Type of Fees	Category	Fees (US\$) or its equivalent in Malawi Kwacha
Application Fees	All	150
Research compliance	Approved Research Proposal	10% of the research/ study budget

Annex 3: Application Form: Form NCST/RR1EIE



Application Form: Form NCST/RR1EIE



NATIONAL COMMISSION FOR SCIENCE AND TECHNOLOGY (NCST) Telephone: + 265 (1) 771 550/774 189/774 869

Lingadzi House Robert Mugabe Crescent Private Bag B-303, Capital City

E-Mail: directorgeneral@ncst.mw

Fax: + 265 (1) 771 432

Lilongwe, Malawi

Form: NCST/RR1EIE

APPLICATION FOR RESEARCH REGISTRATION IN MALAWI (Energy, Industry and Engineering)

. Applicant's Personal Details			
Surname:			
Other names:			
Title: (Mr/Mrs/Ms/Miss/Dr/Assoc Pr	of/ Prof/ Other) (Delete which	chever is applicable)	
Nationality:	Date of Birth:	Sex:	
Highest academic qualification:			
Occupation:			
Contact Address (in Malawi):			

	Te	lephone/ Mobile Numbers:
	Pe	ermanent address:
	E-	mail address(es):
2.	Inst	itutional Affiliation (to be completed by researchers from non-local research
	insti	tutions)
	a)	Name of institution affiliated to:
	b)	Name of contact person:
	c)	Title: (Mr/Mrs/Ms/Miss/Dr/Assoc Prof/ Prof/ Other) (Delete whichever is applicable)
	d)	Position of contact person:
	e)	Telephone/ Mobile Numbers of contact person:
	f)	E-mail of contact person:
3.	Proj	ect Details
	a)	Title of proposed research:
	b)	Discipline of research:
	c)	Purpose of research: PhD/Master degree/others (please specify) (Delete whichever is
	,	applicable)

d)	Research objectives:
	(i) Main Objective (s)
	(ii) Specific Objectives
e)	Research methodology (brief description):

f) District(s) where research will be conducted: g) Date research will commence: h) Estimated period of research (months/ years): Project Sponsorship a) Research budget (specify currency and its equivalent in Mk): b) Has funding already been obtained? (Yes/ No) c) If yes, please state the total amount granted, name and contact details of the funding agency: d) If no, what measures are being taken to ensuring sufficient funding?		
Project Sponsorship a) Research budget (specify currency and its equivalent in Mk): b) Has funding already been obtained? (Yes/ No) c) If yes, please state the total amount granted, name and contact details of the funding agency:		
a) Research budget (specify currency and its equivalent in Mk):		
b) Has funding already been obtained? (Yes/No) c) If yes, please state the total amount granted, name and contact details of the funding agency:	Proj	ect Sponsorship
c) If yes, please state the total amount granted, name and contact details of the funding agency:	a)	Research budget (specify currency and its equivalent in Mk):
agency:	b)	Has funding already been obtained? (Yes/No)
d) If no, what measures are being taken to ensuring sufficient funding?	c)	
d) If no, what measures are being taken to ensuring sufficient funding?		
d) If no, what measures are being taken to ensuring sufficient funding?		
d) If no, what measures are being taken to ensuring sufficient funding?		
d) If no, what measures are being taken to ensuring sufficient funding?		
d) If no, what measures are being taken to ensuring sufficient funding?		
	d)	If no, what measures are being taken to ensuring sufficient funding?

. E	xpected Impact
В	riefly describe the expected impact(s) of the project:
ח	bissemination of research results
	riefly describe any plans for dissemination of research results:
_ [

7.	References			
	Provide names and addresses of two traceable referees, one of them ought to be based i			
	Malawi			
	Signature of applicant:			

For Official Use Only

Check List

Date Application Received	
Application Fees Paid	Yes/ No
CVs attached	Yes/ No
Relevant Authorisations attached	Yes/ No
Research Proposal Accepted for Registration	Yes/ No
Registration Fees Paid	Yes/ No
Research Proposal Registered	Yes/ No

Date: _____