

UNIVERSITY OF DAR ES SALAAM



CALL FOR PROPOSALS FOR COMPETITIVE RESEARCH AND INNOVATION GRANTS FOR YEAR 2019/2020

1.0 INTRODUCTION

The University of Dar es Salaam has an obligation to contribute to the national social and economic development through teaching, research, innovation and public services to the community. Despite its competent human and physical resources, UDSM is confronted with a number of challenges that hamper attainment of its noble obligations. One of these challenges pertains to access to and availability of financial resources for research and innovation activities. In order to have effective contributions to national development initiatives, UDSM research activities are designed to focus on areas of national development priorities. This requires a comprehensive but dynamic Research Agenda that can guide researchers to solicit funds to facilitate their research activities. The UDSM Research Agenda 2018/19 - 2028/29 therefore aims at enhancing multidisciplinary research approach in solving societal problems.

On the other hand, there is need to connect the role of research as well as UDSM's role nurturing innovation and advancement of entrepreneurial skills and commercialization of invented technologies (products and processes) for national development and attainment of Sustainable Development Goals (SDGs). On this understanding, a new grant category of innovation and entrepreneurship has been introduced in this call.

Through the Office of the Deputy Vice Chancellor - Research, the University of Dar es Salaam has set aside research and innovation grant fund amounting to TZS 1,000,000,000 (One Billion Tanzanian Shillings) in the 2019/2020 financial year. This funding initiative aims at building capacity in areas of research and innovation for UDSM academic staff members and students as an important step towards promoting visibility of the University.

It is envisaged that members of academia from various disciplines will jointly prepare research proposals as multidisciplinary research groups for possible funding by the University of Dar es Salaam. This year's Call for Competitive Research, Innovation and Commercialization of Technology Grants Proposals will have three main categories in which UDSM researchers will compete to submit their proposals for funding in line with the research areas outlined in the UDSM Research Agenda clusters.

2.0 CATEGORIES OF THE CALL FOR COMPETITIVE GRANTS

2.1 Multidisciplinary Research

Under this category, UDSM invites researchers from various disciplines to submit their research proposals intended to solve societal problems using multidisciplinary research approach. Individual research project proposals may be considered under exceptional circumstances.

2.2 Innovation and Commercialization of Technology

Under this category, UDSM invites researchers who have invented technologies/prototypes products but they were unable to commercialize them to submit proposals that will lead to commercialization of their invented technologies (products and processes). This may involve registration of businesses, patenting, trademarks registration, etc.

UDSM also has social and academic obligations of nurturing innovation and entrepreneurship skills through supporting young innovators coming up with innovative research projects in their undergraduate and postgraduate studies. In this regard, UDSM will from this year provide financial grant to best student projects, which are in the form of innovation for developing into products that will finally be applied in real life environment and with a potential for commercialization. However, funding for this category will be covered under the operating budget of the University of Dar es Salaam Innovation and Entrepreneurship Centre. Young innovators shall be required to submit proposals on how they will commercialise their technologies. The proposals should include costs for commercialisation of the innovation, time frame and commercialization strategy. Fund for supporting young innovators will be determined based on the merit of the idea. The amount to be provided will depend on how realistic the suggested cost items are.

3.0 RESEARCH AREAS

The research areas covered under this call for research and innovation grants are all the seven (7) research clusters as described in the University of Dar es Salaam Research Agenda 2018/19 - 2027/28 of 2018 (copies could be downloaded from the UDSM Website). The clusters are defined as follows:

Cluster 1: Science, Technology and Innovation (STI), ICT and Industrial Development

Research Areas: *Commercialization, enterprise development and marketing of agricultural, livestock and fisheries products; Technologies for improved food quality, quantity and storage and reducing postharvest losses; Natural products (pesticides, fertilizers etc.) that are environment-friendly; Creation of off-farm employment opportunities in rural areas; Road infrastructure and other forms of communication; New and emerging technologies (ICT, nanotechnologies, material sciences, bioinformatics) and production processes in fields such as, industry, agriculture and agribusiness; Innovations, applications and commercial value-addition advantages; and Earth sciences (physical, chemical and biological processes) that shape the earth's surface and enable future predictions through modelling.*

Cluster 2: Education, Agriculture, Food Security and Health

Research Areas: *Educational access and equity; Health intervention / Health care promotion in schools; Modelling for development; Teacher professionalization, professional development and professional efficacy; Tanzania Development Vision 2025 and school curricula; Education and training for (in anticipation of) a middle-level national economy; The United Nations SDG No. 4 and implications for higher education curricula for industrialization; Communicable and non-communicable diseases; Biomedical and product safety; Increased productivity through technological optimisation in agriculture, livestock, fisheries and marine resources for food security; Food quality, safety and nutrition; Educational management, policy and planning; The financing of education; Educational information management systems; and User information seeking behaviour patterns.*

Cluster 3: Governance, Industrial Policy and Cleaner Production

Research Areas: *Effects of reforms on the built-environment; Mining and conservation; Land use, conservation of natural resources and governance; Value addition to natural resources through manufacturing capabilities; Alternative energy sources; Geology and mineral resources; Geo-technical sciences; and Effects of policies, legislation and regulations on conservation of natural resources and industrial development.*

Cluster 4: Gender, Professional Development, Policy Development and Policy Implementation

Research Areas: *Gender inequality and promotion of gender equality; Empowerment of women and minority; Gender equity in access to educational opportunity; Gender mainstreaming policies and practice in education; Educational transformation and school renewal; Professional education and service; Basic and continuing education and industrialisation; Education and self-employment; Effective use of un-utilized ICT capacity and infrastructure (Distance learning, Tele-medicine, e-health, e-learning), learning management systems; Application of ICT in education, governance, agriculture, manufacturing, tourism and banking; and University-community engagement (UCE).*

Cluster 5: History, Culture, Language, Heritage and Sustainable Tourism

Research Areas: *History and cultural heritage, heritage promotion and tourism development; Sustainable tourism development and management; Accounting and taxation in tourism and creative arts; Preservation, coordination of heritage sites, restoration of historic buildings as well as archival materials; Intangible cultural heritage and devise mechanisms for preservation; Indigenous knowledge and national advance (Socio-cultural and economic applications); Creative arts, performing arts and cultural tourism; The interaction of Kiswahili with other languages; Language and cultural identity and unity; Language and literature development and ICT; and The role of the arts in industrial economy.*

Cluster 6: Natural Resources, Environment and Technology

Research Areas: *Natural products, science and technology; Climate change and eco-systems; Challenges in the forest sub-sector (Deforestation, degradation and unsustainable practices); Biodiversity conservation, plantation forestry, agro-forestry and woodlots technology, forest utilisation and socio-economic and forestry management; Solar energy and technology; Sustainable livelihoods; Climate change and environmental impacts; Climate change and environmental adaptation and resilience; Environmental engineering and production patterns; Pollution (Traffic, ocean, lakes, rivers air) and development; and Biotechnology in waste management and ecological maintenance.*

Cluster 7: Law and Integrated National Development

Research Areas: *Human rights and good governance (Labour law, gender, child protection, accountability, corruption and integrity, local government, international criminal law and transitional justice); Law in development (e.g. Mining and oil and gas laws, maritime law) Constitutional and public law; Intellectual property rights (IPR); Regional integration; Land, environmental and natural resources laws;*

4.0 COMPOSITION OF MULTIDISCIPLINARY RESEARCH TEAMS

It is recommended that multidisciplinary research teams submitting proposals for UDSM Research Grant should preferably comprise of at least one senior researcher at a rank of senior lecturer and above and at least one junior staff member, for mentorship purposes. Gender balance should be considered in the multidisciplinary groups.

5.0 ELIGIBILITY

Eligible applicants of the research and innovation grant are all bonafide academic staff members of the University of Dar es Salaam. Applicants who have previous research grants, whose duration has elapsed and have not submitted final reports, including proper accounting of the grants funds will not be considered in this call.

6.0 BUDGET

The proposal should include projected expenses per budget category such as capacity building, equipment, laboratory facilities/consumables, per-diems, transport, publication etc. The maximum budget for each proposal should not exceed the amounts stated below for a research proposal submitted by a multidisciplinary research group:

- | | |
|--|-------------------|
| (a) Natural and applied sciences | TZS 30,000,000.00 |
| (b) Information and communication technologies | TZS 20,000,000.00 |
| (c) Business, Law, Education, Social Sciences and Humanities | TZS 15,000,000.00 |

Proposals for Innovation and Commercialization of Technology do not have a budget ceiling, but the total amount of funding that is set aside for this category is 30% of the total budget for the 2019/2020 financial year i.e. TZS 300,000,000 (Three hundred Tanzanian Shillings).

All funds awarded and disbursed to researchers will have to be spent in accordance with the approved budget and observing the pertinent financial and procurement laws, rules and regulations, and accounted for within the project duration. The grant funding will not include salaries, honoraria and institutional overheads.

7.0 PROJECT DURATION

The maximum project duration will be twelve (12) months from the date of signing the contract. Longer duration may be allowed under special circumstances.

8.0 APPLICATION DETAILS

The Format for Application of Research Grants as stipulated in the UDSM Research Policy and Operational Procedures, Third Edition of 2015 (Annex III) shall be followed. Applicants shall be required to submit their proposals in MS Word or PDF format (A4 paper size, 1 inch margin all round, 12 points Times New Roman fonts, single line spacing):

- (a) Cover page (not exceeding 1 page) with the following information
 - (i) Title of the Research Project
 - (ii) Cluster/Research Area
 - (iii) Name of the Principal Investigator(s) with emails and mobile telephone numbers
 - (iv) Department
 - (v) College/School/Institute

- (b) The proposal (not exceeding 6 pages), which includes the following information:
 - (i) Objectives
 - (ii) Methodology
 - (iii) Expected outputs
 - (iv) Sustainability measures
 - (v) Project management structure
 - (vi) Project Implementation Plan
- (c) Budget summary (not exceeding 1 page), detailing major anticipated expenses and sources of funds (other than this grant if any).

9.0 DELIVERABLES

Successful applicants will be required to submit to the Director of Research and Publication progress reports on a quarterly basis and the Final Research Report, in accordance with the UDSM Research Policy and Operational Procedures, Third Edition of 2015 (Annex VII and VIII respectively). The reports shall include Financial Statements of Income and Expenditure for the periods covered by the reports. Expected deliverables of the research and innovation projects shall include one or more of the following:

- (a) Commercialised product or process.
- (b) Discovery; new and improved materials, species, technologies or practices.
- (c) Working prototype or process.
- (d) Computer software and applications.
- (e) Publications in form of published book, papers in referred journal of acceptable quality as prescribed by UDSM.
- (f) Registered intellectual property (patent, copyright, etc.).
- (g) Policy briefs, manuals and dissemination materials.

10.0 EVALUATION CRITERIA

The Format for Evaluation of Research Proposals as stipulated in the UDSM Research Policy and Operational Procedures, Third Edition of 2015 (Annex IV) shall be followed. The main criteria for evaluation of proposals is the potential for solving societal problems and contributing to national development, with a special emphasis on industrialisation. The other evaluation criteria include the following:

- (a) Scientific and technical merit
- (b) Focus on the selected cluster and research area
- (c) Novelty and originality
- (d) Quality and clarity of project presentation
- (e) Clear methodology
- (f) Relevance and feasibility
- (g) Multidisciplinary and gender aspect inclusion
- (h) Potential for commercialization including intellectual property protection, up-scaling and application to advance knowledge
- (i) Potential for publications
- (j) Potential for policy advice

All proposals submitted shall be evaluated by teams of independent internal and external reviewers.

11.0 DEADLINE FOR APPLICATION

Thursday, 30th August 2019 at 23:00 hours.

The Proposal should be submitted in electronic form to: research.grant@udsm.ac.tz