



Press Release

THE 4TH CALL FOR COMPETITIVE RESEARCH AND INNOVATION GRANTS 2021/2022

SELECTED PROJECTS

The University of Dar es Salaam is pleased to announce the selected research projects of the 4th Call for Proposals for Competitive Research and Innovation Grants (2021/2022) which was announced on 2nd September 2021 and closed on 18th October 2021. For the year 2021/22, the University has set aside the amount worth **TZS. 3,150,000,000/= (Three Billion One Hundred Fifty Million Tanzanian Shillings)**. Out of this amount, TZS. 2,450,000,000/- is allocated to fund research while TZS. 700,000,000/- is allocated for innovation.

This year's Call for Proposal for Competitive Research and Innovation Grants attracted a total of 229 proposals from different Colleges, Schools, and Institutes of UDSM Main campus as well as from DUCE and MUCE. Out of which 200 were research proposals and 29 were innovation proposals as summarized in the table below:

Proposals submitted for Research and Innovation Grants

Campus	Research	Innovation	Total
UDSM Main Campus	132	26	158
DUCE	38	2	40
MUCE	30	1	31
Total	200	29	229

Upon evaluation by Independent External Reviewers, eighty-eight (88) research and innovation proposals were selected as best proposals to receive funding support for the year 2021/2022 as summarized in the table below:

Campus	Research	Innovation	Total
UDSM Main Campus	62	2	64
DUCE	10	1	11
MUCE	12	1	13
Total	84	4	88

All Principal Investigators (PIs) are requested to contact the Directorate of Research and Publication (DRP) with effect from **Thursday, 20th January 2022** to collect Research and Innovation Grant Award Letters and Contracts so that they can commence their research and innovation undertakings with immediate effect.

Congratulations to all applicants who applied for this year's Competitive Research and Innovation Grants.

ISSUED BY

PROF. BERNADETA KILLIAN
DEPUTY VICE CHANCELLOR - RESEARCH
13th January, 2022

SELECTED PROPOSALS

TABLE A: LIST OF SELECTED PROPOSALS FOR THE AWARD OF THE 4TH UDSM RESEARCH AND INNOVATION GRANT 2021/22 FOR MWALIMU JULIUS NYERERE MAIN CAMPUS

(i) INNOVATION PROPOSALS

S/N	Proposal Title	Members	Hosting Academic Unit	Cluster	Grant Category	Budget (TZS)
1	Cost-free Campus Network for Online e-Services via Free and Open-Source Web Conferencing System	Fatuma Simba (PI) 1. Ally Tahir Bitebo 2. Angelina Zachary Misso 3. Diana Severine Rwegasira 4. Eva Shayo 5. Jackson John Justo 6. Moses Ismail Mchome 7. Mussa Muhidini Kissaka 8. Joel S Mtebe 9. Josephine Kalekwa Stephen 10. Godwin Mruma 11. Emanuel Frank Elia	CoICT	Cluster 1: Science, Technology and Innovation (STI), ICT and Industrial Development	Innovation and Commercialization Grant	138,067,008
2	Commercialization of Bamboo Wine Produced Locally from Bamboo Beverage in Tanzania	Lilian Kaale (PI) 1. Esther K Ishengoma 2. Esther H.J Lugwisha 3. Roman M. Fortunatus 4. Christian Brayson	CoAF	Cluster 1: Science, Technology and Innovation (STI), ICT and Industrial Development	Innovation and Commercialization Grant	299,929,984

ii) RESEARCH PROPOSALS

S/N	Proposal Title	Members	Hosting Academic Unit	Cluster	Grant Category	Budget (TZS)
1	Manufacturing and Commercialization of Inexpensive Assistive Technology Tools and E-Learning User Interfaces for Students with Hearing Impairment in Tanzania	Isack Bulugu (PI) 1. Angelina Zachary Misso 2. Baraka Jacob Maiseli 3. Omari Khalifa Mbura 4. Sarah Ezekiel Kisanga 5. Jamal Firmat Banzi	CoICT	Cluster 1: Science, Technology and Innovation (STI), ICT and Industrial Development	Multidisciplinary Research Grant	30,000,000

2	Design, Fabrication and Commissioning of a Pilot Plant for Production of Pure Ethanol by Azeotropic Distillation	Samwel Manyele (PI) 1. Justin Mugisa Jeremiah 2. Mahir Mohamed Said 3. Neema Bernad Mjami 4. Neema Msuya	CoET	Cluster 1: Science, Technology and Innovation (STI), ICT and Industrial Development	Multidisciplinary Research Grant	30,000,000
3	Upscaling and commercialization of prototype for delivery of sexual and reproductive health products and services Towards good health and wellbeing of students in higher learning institutions	Kwame Ibwe (PI) 1. Baraka Jacob Maiseli 2. Mercy Ellyns Mbise 3. James Magoma (MD) 4. Mr Silvanus Adolph 5. Mr Ian Kisanga 6. Doreen Salim	CoICT	Cluster 1: Science, Technology and Innovation (STI), ICT and Industrial Development	Multidisciplinary Research Grant	20,000,000
4	Development of highly efficient CZTSe based solar cells: a quest to mitigate global warming.	Lwitiko Mwakyusa (PI) 1. E Rwenyagila 2. Margaret Emmanuel Samiji 3. Nathanael Rainald Komba 4. Nuru Ramadhani Mlyuka 5. Talam Enock Kibona 6. Hezekiah Sawa	CoNAS	Cluster 1: Science, Technology and Innovation (STI), ICT and Industrial Development	Multidisciplinary Research Grant	29,600,000
5	A Study of Software Cost Estimation Techniques for Software Startup Companies in Tanzania	Salome Maro (PI) 1. Amani Mdewa Nthangu 2. Leonard Peter 3. Joel S Mtebe	CoICT	Cluster 1: Science, Technology and Innovation (STI), ICT and Industrial Development	Multidisciplinary Research Grant	19,719,500
6	Investigation of Groundwater Inundation in the Central Regional Bus Stand Construction Site in Moshi Town and Proposing Short-term and Long-term Interventions.	William Mremi (PI) 1. Edista Alex Abdallah 2. Remigius Lucius Gama	SoMG	Cluster 1: Science, Technology and Innovation (STI), ICT and Industrial Development	Multidisciplinary Research Grant	30,000,000

7	Digital Assessments for Large or Remote Classes In Mathematics	Idrisa Amour (PI) 1. Fatuma Ikuja Simba 2. Septimi Kitta	CoNAS	Cluster 1: Science, Technology and Innovation (STI), ICT and Industrial Development	Multidisciplinary Research Grant	30,000,000
8	A Proposed Knowledge Sharing System in Tanzania Health Industry	Emmanuel Elia (PI) 1. Ally Tahir Bitebo 2. Esther Ndenje Sichalwe 3. Jelly Ayungo 4. Hussein Sepoko 5. Willy Tarimo	CoSS	Cluster 1: Science, Technology and Innovation (STI), ICT and Industrial Development	Multidisciplinary Research Grant	20,000,000
9	3D Printed composite structures for bone repair and drug delivery "PRICSBOD"	Innocent Macha (PI) 1. Mahamud Mtebwa 2. Regina Peter	CoET	Cluster 1: Science, Technology and Innovation (STI), ICT and Industrial Development	Multidisciplinary Research Grant	29,966,100
10	Strategic Selective Breeding and Development of Residual Feed Intake Index for Shorthorn Zebu Cattle in Agro-Pastoral Systems of Tanzania	Jestina Katandukila (PI) 1. Aloyce Shaban Hepelwa 2. Fred Demetrius Chibwana	CoNAS	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	30,000,000
11	Evaluation of Neuroprotective Potentials and Mechanism of Action of Selected Flavonoids in a Combination of Three Models (in vivo, in vitro and in silico): A Case Study of Parkinson's Disease	Flora Stephano (PI) 1. Joan John Eliona Munissi 2. Stephen Samwel Nyandoro	CoNAS	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	29,940,000
12	Assessment and Scaling Up of Blended Learning Programmes at the University of Dar es Salaam	Philipo Sanga (PI) 1. Leonia Stanslaus Kassamia 2. Miriam Ngomero	SoED	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	14,101,000

13	Development of a Mini Palm Oil Refinery Plant	Simon Marandu (PI) 1. Anold Naiman Towo 2. Divina Kaombe 3. Ekaeli Ellyns Mbise 4. Juliana Zawadi Machuve 5. Wakati Ramadhan Mwaruka	CoET	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	30,000,000
14	Value Chain Costs and Accessibility of Tanzanian Rice to East African Community Market Shelves	Winnie Nguni (PI) 1. Athuman Juma Mahinda 2. Fred Phanuel Okangi 3. Julian Lucas Kimario 4. Ranger Philemon Kanani	UDBS	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	15,000,000
15	Establishment of Virtual Reference Services at the University of Dar es Salaam and Constituent College Libraries: A Baseline Survey	Mohamed Ally (PI) 1. Evans Wema 2. Faraja Ndumbo 3. Ms. Debora Mbilinyi 4. Mr. Ally Bitebo	Library	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	14,860,000
16	The Influence on Changing Context on Health Information Seeking Behavior in Rural and Urban Tanzania: The Case of COVID-19 and its Vaccines.	Opportuna Kweka (PI) 1. Colman Titus Msoka 2. Eminata Kamogo 3. Innocent Muganyizi Pantaleo 4. Lucy Bosco Mpombo 5. Simon Mutebi	CoSS	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	14,994,000
17	Investigation of Factors that Negatively Affects Productivity and Marketability of Hass Avocado in Rungwe District, Mbeya.	Escain Kiwonde (PI) 1. Beatrice Tonola 2. Charles Happe Kasanzu 3. Esther Francis Mvungi 5. Muhoja Sylvester Nyandi	CoNAS	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	30,000,000
18	Development of Soft Skills among Primary School Mathematics Teachers to Enhance Their Competences	David Koloseni (PI) 1. Septimi Kitta 2. Silvester E.E Rugeihyamu 3. Wadrine Onael Maro 4. Zubeda Mussa 5. Rose Kisusi	CoNAS	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	15,000,000

19	Increasing Tilapia and Catfish Fry Production through Automated Fish Fry Counting and Transportation System (AFCOTS) Technology in Aquaculture	Betina Lukwambe (PI) 1. Betina Michael Lukwambe 2. Chacha John Mwita 3. Ditram Herman Ngairo 4. Lydia Gaspare 5. Redempta Athanas Kajungiro 6. Vicent Faustin Tsoray	SoAF	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	30,000,000
20	Development and Formulation of Bioactive Phyto-Ingredients Pesticide for a Prolonged Storability of Maize and Bean in Tanzania	Faraja Makwinja (PI) 1. Athuman Juma Mahinda 2. Salma Damla 3. Stephen Samwel Nyandoro	CoAF	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	30,000,000
21	The assessment of Malaria and Relapsing fever co-infection in school-aged children in Dodoma Municipal, central Tanzania	Kija Nghabi (PI) 1. Alex Joseph Mujuni 2. Felista Mwingira	MCHAS	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	29,900,000
22	Assessment of Anticancer Effects of Honeys from Five Tanzanian Phytochoria	Adil Kalekezi (PI) 1. Halima Mfaume 2. Ibrahim S Kinyoro 3. Masoud Hadi Muruke 4. Mkabwa Lawrence Manoko 5. Salma Damla 6. Oliva Augustino	CoAF	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	30,000,000
23	Assessment of aflatoxins, nicotine, and heavy metals in Tanzanian honey and consumer risks associated with the contaminants	Ibrahim Kinyoro (PI) 1. Juma Abdallah Mmongoyo 2. Masoud Hadi Muruke 3. Christopher Mduda 4. Namtero John 5. Happyness Tosha Lyakundi	CoAF	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	29,900,000

24	The Impacts of Climate Change on Biodiversity and Food Security in the Hunter-Gatherer Communities of Northern Tanzania	Hashim Mangosongo (PI) 1. Bertha Omani Koda 2. Iman Salehe Yangaza 3. Jasson R.M John	CoNAS	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	15,000,000
25	Mapping Potential Areas for Sustainable Mariculture Expansion Along the Coast of Tanzania. A case Study for Milkfish and Silver Pompano	Fadhili Malesa (PI) 1. Margareth S. Kyewalyanga 2. Sijali Pamba	SoAF	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	30,000,000
26	Managing Higher Education Institutions in the Context of Covid-19: Experiences of Tanzanian Institutions on Emergency Remote Teaching and its Implications for Education Quality, Equity and Access.	Ahadi Anania (PI) 1. Amina Nasibu Kamando 2. Johnson M Ishengoma 3. Thaudensia Thomas Ndeskoi	SoED	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	15,000,000
27	Eco-toxicity and farmers' agricultural practices assessment in the Kilombero Ramsar site: Implication to food safety, environmental and human risk assessments	John A.M Mahugija (PI) 1. James Kachugwa 2. John Valentine Lyakurwa 3. Estelia Mwambene	CoNAS	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	29,997,600
28	Re-skilling Youths and Adults for Effective Engagement as Workers in the Context of Industrialization Policy Implementation in Tanzania	Benjamin Mbughi (PI) 1. Eustella P Bhalalusesa 2. Juliana Zawadi Machuve 3. Leonard M. P Rweyemamu 4. Mpoki John Mwaikokesya	SoED	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	14,985,000
29	COMBATING ANEMIA USING AVOCADO (Persea americana Mill) AND GUAVA (Psidium guajava Linn) LEAF EXTRACTS IN TANZANIA	Stephen S. Nyandoro (PI) 1. Chacha Werema Nyamkinda 2. Donath Damian 3. Joan John Eliona Munissi 4. Ng'weina Francis Magitta 5. Flora Stephano	CoNAS	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	26,040,000

30	Analysis of Nutritional Quality and Antioxidant Properties of Neglected Fruits for Body Health Management during COVID-19: A case of Wild Edible Fruits from Miombo Woodland in the Western Tanzania	Iman Yangaza (PI) 1. Agnes Morris Sebharinda Nyomora 2. Faraja Deo Gonelimali 3. Stephen Issa Nnungu	CoNAS	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	23,154,000
31	Mapping trace elements distribution in grazing land soils of the Kongwa Area, Dodoma, Central Tanzania; Geology and food security nexus	Charles Kasanzu (PI) 1. Justina James Saroni 2. Mkabwa Lawrence Manoko	SoMG	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	30,000,000
32	Addressing Factors that Obstruct the Marketing System of Oranges Produced by Smallholder Farmers in Muheza District for Purpose of Improving Smallholder Farmers Welfare	Patrick Singogo (PI) 1. Elizabeth Shabo Joseph 2. Ranger Philemon Kanani 3. Rosemary Stanley Taylor	UDBS	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	14,300,000
33	To Investigate Mental Health Challenges among students and staff at the University of Dar es Salaam.	Bernadeta Rushahu (PI) 1. Eustella P Bhalalusesa 2. Gatambwa Dennis Mukandala 3. Hilda Charles Tizeba	SoED	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	29,680,000
34	The Eyasi-Wembere sedimentary successions, N-E Tanzania: age assignment and establishment of paleodepositional conditions from biostratigraphy and oxygen-isotope studies	Sara Emanuel (PI) 1. Charles Happe Kasanzu 2. Emily Barnabas Kiswaka 3. Justina James Saroni	SoMG	Cluster 3: Governance, Industrial Policy and Cleaner Production	Multidisciplinary Research Grant	30,000,000
35	A study of gold deposits, environmental effects and potential environmental remediation techniques in Iramba-Sekenke, Singida.	Remigius Gama (PI) 1. Emmanuel Owden Kazimoto 2. Ginena Bildard Shombe 3. Mary Charles Moshi 4. Nelson Boniface 5. Elvanus Kapira	SoMG	Cluster 3: Governance, Industrial Policy and Cleaner Production	Multidisciplinary Research Grant	30,000,000

36	Characterization of the Permo-Triassic Karoo organic-rich sediments of the Tanga Basin, Northeast Tanzania: Contributing to Petroleum Discovery	Justina Saroni (PI) 1. Emily Barnabas Kiswaka 2. Emmanuel Owden Kazimoto 3. Sara Emanuel	SoMG	Cluster 3: Governance, Industrial Policy and Cleaner Production	Multidisciplinary Research Grant	29,602,000
37	Assessing and Developing a Working Funding Model for Tanzania's Public Service Broadcasting in the Age of Innovative Technology	Egbert Mkoko (PI) 1. Alex Benson 2. Consolata Raphael Sulley	SJMC	Cluster 4: Gender, Professional Development, Policy Development and Policy Implementation	Multidisciplinary Research Grant	14,730,000
38	Determinants of supply chain resilience and its effects on vaccines availability	Yusta Simwita (PI) 1. Gladness Ladislaus Salema 2. M Mkandawile 3. Amrad Charles Mlowola	UDBS	Cluster 4: Gender, Professional Development, Policy Development and Policy Implementation	Multidisciplinary Research Grant	21,640,000
39	Reconnoitering the Local Communities' Involvement in Conservation of Cultural Heritage Sites of the Nyerere Game Reserve for Poverty Alleviation in Tanzania: A Formative Field Intervention Study	Nancy Rushohora (PI) 1. Herbert Qambalo Hambati 2. Nestory E Yamungu	CoHU	Cluster 5: History, Culture, Language, Heritage and Sustainable Tourism	Multidisciplinary Research Grant	15,000,000
40	Coexistence of Wildlife and Human in the Ngorongoro Conservation Area: Exploring the Socioeconomic aspects and the Possibilities for the Replication of the 'Ngorongoro Model' in Tanzania	Rosemary Stanley Taylor (PI) 1. Stephen Kirama 2. Aloyce Shaban Hepelwa	UDSoE	Cluster 5: History, Culture, Language, Heritage and Sustainable Tourism	Multidisciplinary Research Grant	14,990,000
41	Mythologizing Tanzanian Tourism: An Ethno-Mythological Investigation of the Myths of Lake Kisiba, Rungwe, Tanzania	John Wakota (PI) 1. Ignas Brown Fedeo 2. Astelia Kululinda Mihayo 3. Astelia Kululinda Mihayo	CoHU	Cluster 5: History, Culture, Language, Heritage and Sustainable Tourism	Multidisciplinary Research Grant	14,610,000

42	“HACHANJWI MTU HAPA!” Investigating COVID-19 Vaccine Narratives in Tanzania	Ernesta Mosha (PI) 1. Angelus Jacob Mhenuka 2. Consolata Raphael Sulley	IKS	Cluster 5: History, Culture, Language, Heritage and Sustainable Tourism	Multidisciplinary Research Grant	15,000,000
43	Incorporating community, development and biodiversity with conservation to enhance protected area management: A case of Pugu-Kazimzumbwi Nature Forest Reserve, Tanzania	Flora Magige (PI) 1. Beatrice Tonola 2. Jasson R. M John 3. W.K Kalugasha	CoNAS	Cluster 6: Natural Resources, Environment and Technology	Multidisciplinary Research Grant	29,970,000
44	Establishment of Land Use and Cover Change Dynamics in Miombo Woodlands of Uyui and Urambo Districts of Tabora Region	Amos Majule (PI) 1. Anasia Saria 2. Michael Elias Mgalula	IRA	Cluster 6: Natural Resources, Environment and Technology	Multidisciplinary Research Grant	30,000,000
45	Replacement of Mercury Usage in Artisanal and Small-Scale Gold Mining (ASGM) by Exploitation of Gold Malleability in a Rod Mill	Alphonse Wikedzi (PI) 1. Faustine Ngoroma 2. Happiness Morris Hiji 3. Henry Tegan Kimweri 4. Richard Jackson Katemi 5. Zainab Katima	SoMG	Cluster 6: Natural Resources, Environment and Technology	Multidisciplinary Research Grant	29,998,500
46	Nutritional and Nutraceutical Profiling of Low Value Fish Species for Enhancement of Food and Health Security in Tanzania	Changoma Marco (PI) 1. Aneth David Mwakilili 2. Blandina Robert Lugendo 3. LILIAN Daniel Kaale	CoAF	Cluster 6: Natural Resources, Environment and Technology	Multidisciplinary Research Grant	30,000,000
47	Investigation on endophytes from medicinal plants and their bioactive secondary metabolites for medical applications	Fulgence Mpenda (PI) 1. Hawa Hillali Myovela 2. Sylvester Lyantagaye 3. Dr. Mwanaisha M Kangara	CoNAS	Cluster 6: Natural Resources, Environment and Technology	Multidisciplinary Research Grant	30,000,000

48	Assessing the impact of Covid-19 on conservation and management of Marine Protected Areas (MPAs) in Tanzania	Leonard Chauka (PI) 1. Patrick Madulu Ndaki 2. Rukia Abdallah Kitula	IMS	Cluster 6: Natural Resources, Environment and Technology	Multidisciplinary Research Grant	29,830,000
49	Mapping Ecosystems and Livelihoods of the Lower Rufiji Floodplain and Delta: A baseline survey towards the implementation of the Large Investments in the Rufiji River.	Kelvin Kamnde (PI) 1. Mwanahija Salehe Shalli 2. Mwita Marwa Mangora 3. Violeth Swai	IMS	Cluster 6: Natural Resources, Environment and Technology	Multidisciplinary Research Grant	30,000,000
50	Assessment of levels of plastic plasticizers and linked metabolites in Lake Victoria Aquatic Ecosystem	Clarence Mgina (PI) 1. Elianaso Elimbinzi 2. F N Ngassapa 3. Jerry Geoffrey Mang'ena 4. Sai Ngassa	CoNAS	Cluster 6: Natural Resources, Environment and Technology	Multidisciplinary Research Grant	30,000,000
51	Explorations of Biological Degradations of Organohalides in Soil: Toward Development of Biotechnologies for Decontaminating Organochlorines Pesticides (OCPs) in the Environments.	Fredrick Lyatuu (PI) 1. A. S Mwakaboko 2. Daniel George Maeda 3. Modester Damas Nkungu 4. T. Hangali 5. Shabani, Zulfa Ismail	CoNAS	Cluster 6: Natural Resources, Environment and Technology	Multidisciplinary Research Grant	29,391,500
52	Assessing the Contribution of Climate Change Impacts on Creation of Innovative Social Business Enterprises in Tanzania: A Case Study of Semi-Arid Regions of Central Tanzania	Musa Shelembi (PI) 1. Amelia Sylivery Buriyo 2. Gerald Bernard Magova	UDBS	Cluster 6: Natural Resources, Environment and Technology	Multidisciplinary Research Grant	14,992,866
53	Combating Human-Wildlife Conflicts in Tanzania Using Stinging Honey Bees (APIS MELLIFERA) to Deter Crop-Raiding Elephants	Mkabwa Manoko (PI) 1. Chacha Werema Nyamkinda 2. Elikana Kalumanga 3. Lucius R. Mugisha	CoAF	Cluster 6: Natural Resources, Environment and Technology	Multidisciplinary Research Grant	29,900,000

54	Assessment of Plant and Fauna Species Diversity in a Restored Forest Corridor: The Case of Bunduki Corridor, Uluguru Mountains, Tanzania	Monica Shilerey (PI) 1. Christopher M.P William 2. Jasson R. M John 3. Monica Shilereyo	CoNAS	Cluster 6: Natural Resources, Environment and Technology	Multidisciplinary Research Grant	27,780,000
55	Biological filters-microbial based treatment system (Bio-FITS) technology: A key towards sustainable waste management in aquaculture production systems	Redempta Kajungiro (PI) 1. Betina Michael Lukwambe 2. Chacha John Mwita 3. Ditram Herman Ngairo 4. Fadhili Mustafa Malesa 5. Lydia Gaspare 6. Vicent Faustin Tsoray	SoAF	Cluster 6: Natural Resources, Environment and Technology	Multidisciplinary Research Grant	30,000,000
56	How Climate Smart Agriculture practices improve food Securities and Productivities in Tanzania: A Case of Maize production in Ruvuma	Martin Chegere (PI) 1. Monica Sebastian Kauky	UDSoE	Cluster 6: Natural Resources, Environment and Technology	Multidisciplinary Research Grant	15,000,000
57	Communities' Adaptation to Climate Change along the Coastal Regions of Tanzania	Masoud Muruke (PI) 1. Clement Mromba 2. Paul Tilwebwa Shelleph Limbu 3. Semeni Mussa Ngozi 4. Pazi Mwinyimvua Semili	CoAF	Cluster 6: Natural Resources, Environment and Technology	Multidisciplinary Research Grant	22,645,000
58	Application of Sustainable Intensification Technologies on Farmlands Adjacent to Protected Forests in Eastern Tanzania.	Innocensia John (PI) 1. Monica Sebastian Kauky 2. Razack Bakari Lokina 3. Eward Mushi	CoAF	Cluster 6: Natural Resources, Environment and Technology	Multidisciplinary Research Grant	14,800,000
59	Impact of Exotic Plantations on Pollinators in Southern Highlands, Tanzania	Chacha Nyamkinda (PI) 1. Abel Bui Ahungu 2. Elikana Kalumanga 3. Jasson R. M John 4. Mecklina Michael 5. Christopher Mduda	CoNAS	Cluster 6: Natural Resources, Environment and Technology	Multidisciplinary Research Grant	29,510,000

60	Factors Influencing Travel Motivation, Revisit Intention and Satisfaction of Tourists: A Comparative Analysis of Domestic and Foreign Tourists Visit in Ngorongoro Conservation Area and Kilimanjaro National Park	Stephen Kirama (PI) 1. Erica Louis Mtenga 2. Severine Sirito Kessy 3. Neema Mollel	UDSoE	Cluster 6: Natural Resources, Environment and Technology	Multidisciplinary Research Grant	14,940,000
61	A Novel Policy Implementation Model for Peaceful Coexistence between the Refugees and Host Communities in Western Tanzania.	Gelas Rubakula (PI) 1. Colman Titus Msoka 2. Omary Said Thabit 3. Petro Sauti Magai 4. Theresia Edward Busagara	IDS	Cluster 7: Law and Integrated National Development	Multidisciplinary Research Grant	15,000,000
62	Gender-Based Situational Analysis of Children Living and Working on Streets (CLWS) in Tanzania	Victoria Makulilo (PI) 1. A. E Songoro 2. Herbert Qambalo Hambati 3. Jonas Jackson Kinanda	CoSS	Cluster 7: Law and Integrated National Development	Multidisciplinary Research Grant	15,000,000

TABLE B: LIST OF SELECTED PROPOSALS FOR THE AWARD OF THE 4TH UDSM RESEARCH AND INNOVATION GRANT 2021/22 FOR DAR ES SALAAM UNIVERSITY COLLEGE OF EDUCATION (DUCE)

(i) INNOVATION PROPOSAL

S/N	Proposal Title	Members	Hosting Academic Unit	Cluster	Grant Category	Budget (TZS)
1	The Potential of Tanzania Clay Minerals and Agro-Wastes for Production of Engineering Materials: A Means to Combine a Challenge of Climate Change and Materials Development	Aldo Kitalika (PI) 1. Silvia John 2. Said Abeid 3. Petrol Ezekiel 4. Makungu M. Madirisha 5. Elianaso Elimbizi	Languages and Literature (LL)	Cluster 1: Science, Technology and Innovation (STI), ICT and Industrial Development	Innovation Grant (Innovation and Commercialization of Technology)	100,000,000

ii) RESEARCH PROPOSALS

S/N	Proposal Title	Members	Hosting Academic Unit	Cluster	Grant Category	Budget (TZS)
1	Unveiling Amygdalin Mechanism of Action as Anticancer Agent	Silvia Mushi (PI) 1. Ebenezer Erasto Ngowi 2. Geradius Deogratias 3. Grace Ansgar Kinunda 4. Sixberth Mlowe 5. Lucas Paul	Chemistry	Cluster 6: Natural Resources, Environment and Technology	Multidisciplinary Research Grant (Natural and Applied Sciences)	25,016,564
2	Data Driven Analysis for Energy Theft Detection in Power Grid Systems	Yohana Elimboto (PI) 1. Diana Severine Rwegasira 2. Edward Ngailo	Physics, Mathematics and Information (PMI)	Cluster 1: Science, Technology and Innovation (STI), ICT and Industrial Development	Multidisciplinary Research Grant (Information and Communication Technologies)	19,965,000
3	Formulation and Performance of Adsorbents from Local Materials for Onboard Storage of Natural Gas: A Key in Addressing Climate Change	Petro Mabeyo (PI) 1. Makungu Marco Madirisha 2. Silvia John Mushi	Chemistry	Cluster 1: Science, Technology and Innovation (STI), ICT and Industrial Development	Multidisciplinary Research Grant (Natural and Applied Sciences)	30,000,000
4	Enhancing Multidisciplinary Grant writing Skills for early career researchers in Tanzania Higher Education: An exploratory study	Katherine Fulgence (PI) 1. C. I Raphael 2. David Sylvester Kacholi 3. Edwin Babeiya	Educational Foundations, Management and Lifelong Learning (EFMLL)	Cluster 4: Gender, Professional Development, Policy Development and Policy Implementation	Multidisciplinary Research Grant (Business, Law, Education, Social Sciences and Humanities)	15,000,000

5	The Effect of Construction of Word Problems on Students' Performance in Primary Schools	Edward Ngailo (PI) 1. Benedict Phanuel Lema 2. J Kalinga	Physics, Mathematics and Information (PMI)	Cluster 5: History, Culture, Language, Heritage and Sustainable Tourism	Multidisciplinary Research Grant (Business, Law, Education, Social Sciences and Humanities)	15,000,000
6	Assessment of the Climate Change Vulnerability and Resilience of Agro-Pastoral Communities in Tanzania	Emmanuel Kwayu (PI) 1. Lilian Mulamula	Geography and Economics (GE)	Cluster 6: Natural Resources, Environment and Technology	Multidisciplinary Research Grant (Natural and Applied Sciences)	29,850,000
7	Protecting Our Students in Schools (POSS): A Digitalized Intervention for Reporting Students' Misbehaviour, Absenteeism and Dropout for Schools to Education Officers in Tanzania	Mabula Nkuba (PI) 1. Batha Simon Lwimo 2. I. Moses 3. Laurian Philip Wajimila 4. Salmin Mohamed Singano	Educational Psychology and Curriculum Studies (EPCS)	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant (Business, Law, Education, Social Sciences and Humanities)	15,000,000
8	Enhancement of Teaching and Learning Mathematics Using ICTs in Secondary Schools in Selected Regions in Tanzania	Furaha Chuma (PI) 1. C. I Raphael 2. Esther Evarist Mallya 3. Furaha Chuma	Physics, Mathematics and Information (PMI)	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant (Information and Communication Technologies)	19,905,000
9	Efficacy of University Mathematics Curriculum in the Training of Secondary School Mathematics Teachers in Tanzania	Florence Kyaruzi (PI) 1. Gasper Godson Mwanga 2. Ms Honorata Kihaga 3. Alejandro González-Martín	Educational Psychology and Curriculum Studies (EPCS)	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant (Business, Law, Education, Social Sciences and Humanities)	15,000,000

10	AN INVESTIGATION OF STUDENT ENROLMENT TREND IN THE DEVELOPMENT OF SCIENCE AND MATHEMATICS IN TANZANIA. A case study of five (5) Regions in Tanzania Mainland	Zubeda Mussa (PI) 1. Agnella Nemuo Mandia 2. David Koloseni 3. Septimi Kitta 4. Silvester E.E Rugeihyamu	Physics, Mathematics and Information (PMI)	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant (Business, Law, Education, Social Sciences and Humanities)	14,905,000
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TABLE C: LIST OF SELECTED PROPOSALS FOR THE AWARD OF THE 4TH UDSM RESEARCH AND INNOVATION GRANT 2021/22 FOR MKWAWA UNIVERSITY COLLEGE OF EDUCATION (MUCE)

(i) INNOVATION PROPOSAL

S/N	Proposal Title	Members	Hosting Academic Unit	Cluster	Grant Category	Budget (TZS)
1	Enhancement of tourism industry through creation of new tourist products within Southern Highlands on a basis of existing Tanzania-Zambia Railway	Jerzy Gilarowski (PI) 1. Helena Elias Myeya 2. Mirau Ndetaulwa Mbise 3. Venderine Emmanuel Tairo	Geography and Economics MUCE (GE)	Cluster 5: History, Culture, Language, Heritage and Sustainable Tourism	Innovation and Commercialization Grant	61,700,000

ii) RESEARCH PROPOSALS

S/N	Proposal Title	Members	Hosting Academic Unit	Cluster	Grant Category	Budget (TZS)
1	Transforming Leachates into Cheap Fertiliser for Improving Agricultural Productivity and Waste Recyclability	Christina Pius (PI) 1. Godlisten Namwel Shao 2. Washa Bugalama Washa	Chemistry	Cluster 1: Science, Technology and Innovation (STI), ICT and Industrial Development	Multidisciplinary Research Grant	30,000,000
2	Potential health risk assessment for toxic metals and microbial contamination in clay-soil consumed among pregnant women in Tanzania	Moses Olotu (PI) 1. Amina I. Msonga 2. Fanuel Ligate	Biological Sciences	Cluster 1: Science, Technology and Innovation (STI), ICT and Industrial Development	Multidisciplinary Research Grant	30,000,000

3	Assessment of Nutritional Composition in Selected Herbs to Enhance their Utilization as Food Supplements	Elianaso Elimbinzi (PI) 1. Christina Fabian Pius 2. Fanuel Ligate 3. Godlisten Namwel Shao 4. Venderine Emmanuel Tairo	Languages and Literature (LL)	Cluster 1: Science, Technology and Innovation (STI), ICT and Industrial Development	Multidisciplinary Research Grant	25,000,000
4	Determination of utilization and degradation threats on wild edible fruits in Miombo woodlands of Uyui and Sikonge Districts in Tabora region of Western Tanzania	Michael Mgalula (PI) 1. Ms. Anasia Saria 2. Mirau Mbise	Geography and Economics	Cluster 6: Natural Resources, Environment and Technology	Multidisciplinary Research Grant	30,000,000
5	Transforming Ripe Brewing Banana Fruits into Bioethanol Fuel	Lewis Mtashobya (PI) 1. Debora John Mahushi 2. Jovine Kamuhabwa Emmanuel 3. Jonas Gervas	Chemistry	Cluster 3: Governance, Industrial Policy and Cleaner Production	Multidisciplinary Research Grant	29,920,000
6	Investigating Sustainability of Community Based Initiatives to Improve Maternal and Child Health in Rural Tanzania: A Case of Uturo Model in Mbarali District	Chakupewa Mpambije (PI) 1. David Manyerere 2. Helena Elias Myeya	Languages and Literature (LL)	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	15,000,000
7	Developing Critical Thinking Skills among Secondary Schools Students in Tanzania through Research Project Work	Selina Mkimbili (PI) 1. Jaquiline Moshi Amani	Educational Psychology and Curriculum Studies (EPCS_MUCE)	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	15,000,000

8	Inclusion of People with Disabilities in Decision Making Organs in Tanzania: The Case of Mara Region	Livini Tesha (PI) 1. Aneth William Kasebere 2. Michael Greyson Mgonja	Geography and Economics	Cluster 4: Gender, Professional Development, Policy Development and Policy Implementation	Multidisciplinary Research Grant	15,000,000
9	Enhancing Access to Pre-Primary Education and Learning through a Culturally Responsive Instruction	Jaquiline Amani (PI) 1. Samsoni John Mgaiwa	Educational Psychology and Curriculum Studies (EPCS_MUCE)	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	15,000,000
10	What Motivates and Demotivates College Students' Reading Behavior: Implications for Academic Achievement	John Kalolo (PI) 1. Jaquiline Moshi Amani 2. Philpo Gwevu John 3. Selina Thomas Mkimbili	Educational Psychology and Curriculum Studies (EPCS_MUCE)	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	15,000,000
11	Diversifying Cultural Heritage Tourist Products for Sustainable Rural Livelihood in Southern Circuit of Tanzania	David Manyerere (PI) 1. Shakila Halfani Mteti	History, Political Science and Development Studies	Cluster 2: Education, Agriculture, Food Security and Health	Multidisciplinary Research Grant	15,000,000
12	Enhancing teaching and learning of Swahili as a foreign language through Open and Distance Learning (ODL) platform	Gervas Kawonga (PI) 1. Anselmina Shinyaka 2. Astelia Mihayo 3. Augustino Amos Kagwema 4. Edward Nsolo 5. F Kilowoko 6. Focas Aloyce Nchimbi 7. Jane Edward Massamu 8. Jeni Kidasi	Languages and Literature (LL)	Cluster 5: History, Culture, Language, Heritage and Sustainable Tourism	Multidisciplinary Research Grant	15,000,000

		9. Philpo Gwevu John 10. Ponsiano Sawaka Kanijo 11. Salehe Kaoneka 12. Veronica Mbuba				
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