Panduan

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EDISI REVISI

PANDUAN
Riset Kerjasama Internasional

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UNIVERSITAS MUHAMMADIYAH SURAKARTA
2022

UMS Partnership Research Grant

A. Introduction

Indonesia experiences a growing economic condition in the past two decades. Yet, the human capital index remains low, and the prosperity is not equal across the country (World Bank, 2020). In addition, the country still faces enormous problems in various sectors, including low wages, poor access to good education, food insecurity, poor infrastructures, environmental issues, unequal health care access, and gender inequality (Gibson, 2017; BAPPENAS, 2017; BAPPENAS, 2019; United Nation, 2020;). Multifaceted factors are indicated to challenge Indonesia in addressing those issues, such as political circumstances, corruption, geographical conditions, and socio-cultural as well as religious factors (Mahendradhata et al., 2017; Agustina et al., 2018; BAPPENAS, 2019). Moreover, the Covid-19 pandemic that hit all over the world in early 2020 has exacerbated these conditions (Halimatussadiah et el., 2020).

Universitas Muhammadiyah Surakarta (UMS) as a flourishing private university in Indonesia views that it is essential to contribute to overcoming the problems within the community. One of the strategies to achieve this goal is through research to produce sophisticated solutions. This is deemed necessary considering an international partnership that could enhance the ability of UMS researchers to conduct multi-disciplinary research collaborations with international partners from universities and/or research organizations around the world. As an outcome, the increased number of UMS international publications may provide a new insight that could help the country to build a better future. UMS Partnership Research Grant
is designated to facilitate collaborations in multidisciplinary research in searching the solution of the problems within the global as well as local communities as well as improving global network with international partners.
The grant intends to provide a small amount of seed funding to:

- Initiating and developing international research partnerships which will lead to capacity and leadership development of UMS scholars.
- Building international recognition towards UMS.
- Bridging in gaining international grants.

The priorities area of this grant should be matched with the following six themes :

1. Education

The global pandemic has disrupted global education, including in Indonesia. Temporary school closures due to the pandemic have affected the majority of students and have forced many of them to be out of school. The adverse consequence of the pandemic is most severe in vulnerable and marginalized communities, where accessing online resources is barely possible. High-quality research and innovation will be crucial in providing evidence-based policy and practical solutions to ensure inclusive and equitable education and lifelong learning opportunities for all.

Sub-topics:

a) Smart, healthy, courageous, and highly competitive human resources
b) Inclusive and equitable education

2. Food

The number of people affected by hunger globally has been slowly increasing and food security has been deteriorating further due to the impacts of Covid-19. Food security means that all people have access to safe and nutritious food which meets the requirements for a healthy life, in ways the planet can sustain in the

future. Addressing food security requires knowledge of onofood systems - including food production, processing, distribution, and consumption to waste disposal and use of residue and - how they interact with other systems such as health and the environment. Another threat to food security is climate change which increases the risk of crop failure, pests, and diseases, lack of appropriate planting materials, and loss of livestock. Investing in collaborative and multidisciplinary projects is vital in overcoming the threat to food security to achieve the goal of eradicating hunger by 2030.

Sub-topics:
a) Intelligent industrial-based agricultural technology
b) Food security
c) Sustainable food

3. Health

Health security is a global priority. Despite health being a human right, timely, acceptable, and affordable health care is not available for about half of the world's population. Low-income and lower-middle-income communities still suffer from poor health security which affects their quality of life. Therefore, it is important to develop policies that increase health security by preventing suffering, saving lives, and brightening the future of the communities. Our vision is to provide an effective and efficient national health care program by planning, financing, and implementing priority health initiatives, increasing the application of international standards of care; improving the supply and quality of available medicines; and ensuring a functioning, affordable health insurance system. When infectious diseases know no border, such as the Covid-19 pandemic, an initiative to improve self-reliance in controlling tropical and infectious diseases is also one of the priorities. Protecting mothers and newborns from preventable death and diseases should be regarded to ensure a better life for future generations.

Sub-topics:
a) Natural and synthetic medicines
b) Medical devices and instrumentation
c) Health security
d) Infectious and tropical diseases

4. Resilience

People around the world are increasingly exposed to natural hazards and crises. Climate change escalates the risk of natural disasters, which can also bring communities more prone to diseases, market shocks, as well as conflicts. The current global pandemic has proven that emergency preparedness is important. Resilience can be described as preparedness to reduce the wide variety of risks faced by people and communities, now and in the future. Building resilience, particularly for the poor and the vulnerable can reduce their exposure and vulnerability to climate-related disasters and other economic, social, environmental as well as health disasters. As the world faces more complex and interconnected challenges, collaborative research and innovation are required to provide countries with better early warning and disaster risk reduction systems and ensure that those who are most vulnerable to disasters are more prepared.

Sub-topics:
a) Disaster management
b) Water resources
c) Climate change
d) Governmental systems
e) Global pandemic

5. Sustainable communities

More than half of the world's population has been living in cities and the population is continuing to rise. Currently, cities occupy about three percent of the earth's land, however, they contribute up to 70 percent of global carbon emission and over 60 percent of resource use. Rapid urbanization is resulting in overburdened infrastructure and services, worsening air and water pollution, and causing unplanned urban sprawl. It was shown that the most devastating impact of Covid-19 was experienced by people living in a dense urban areas, especially those occupying informal settlements and slums.

Significant changes in community planning by reducing the opportunity gap between people living in the urban and rural area is urgently required to reduce urbanization. Actions in increasing access to transport,

housing, and green public places, reducing air and water pollution, and protecting cultural and natural heritages are critical in developing human settlements which are more inclusive, safe, resilient, and sustainable.

Sub-topics:
a) Transportation, infrastructure, and facilities
b) Smart cities
c) Preservation and protection of cultural values, local wisdom, and language
d) Sustainable economic growth

6. Energy

Increasing energy demand and on the other hand limited capacity of non-renewable energy resources requires strategic planning in developing more energy-efficient systems as well as finding more sustainable energy resources. Easy access to electricity and energy sources is necessary for countries to secure sustainable and inclusive economic growth. It is important to build a strong system for optimizing full energy potentials and developing technology to reduce energy consumption, as well as systems to guarantee energy security for all.

Sub-topics:
a) Clean energy
b) Electricity technology
c) Energy management
d) Efficient and smart energy technology

B. Outcomes

Targets/ outcomes

Outcomes need to be achieved through this grant, including:

- International publications (minimum Q1/Q2) and citations.
- Intellectual property rights : Patent.
- International research funding.

All the intellectual properties belong to UMS and are proportional to the partner.

C. TRL (*Technology Readiness Level*)

Each research proposal submitted must include its Technology Readiness Level (TKT).

1. Basic Research : TRL 1, 2 to 3
2. Applied Research : TRL 4, 5 to 6
3. Developmental Research : TRL 7, 8 to 9

D. Criteria & General Requirement

Applicants must pay attention to the following points:

- The study is conducted by a research group either in basic or applied research with Technology Readiness Level 1-6.
- The duration of study is multiyear (maximum 3 years).
- Research team from multidisciplinary fields is a priority.
- The research team should have a partner that should meet several eligibility criteria mentioned in the next section.
- The internal research team should consist of one principal investigator and a minimum of two co-investigator. There is a maximum of three internal co-investigator for each project. (Multi-discipline)
- The internal research team should involve at least two and a maximum of five active students.
- The external research team should consist of one principal investigator and a minimum of one co-investigator. There is a maximum of three external co-investigator for each project.

- For those who have no memorandum of understanding (MoU) with the partners, an MoU should be established once the funding is awarded.
- Funding amount is IDR 100,000,000 per year for each topic of research will cover.
  - ❖ Consumables
  - ❖ Data analysis
  - ❖ Travels
  - ❖ Conference/publication fee
  - ❖ Research assistant fee
  - ❖ Salary for the internal researcher
- Matching funds from partners (in cash and kind).

Eligibility criteria

Successful applicants are those who meet the below criteria:

Joint principal investigator (PI)

Criteria for Indonesia's principal applicants are:

- PI holds a PhD degree with at least lecturer qualification or holds a Master's degree with at least senior lecturer qualification.
- PI has a National Lecturer Identification Number or *Nomor Induk Dosen Nasional* (NIDN).
- PI has a partner from overseas.
- One person can only be a PI for one project and can be a team member in another proposal.

Criteria for a partner:

The research partner should come from reputable universities/research institutes/donor agencies, proven by University rank in QS World University Rankings or certification of establishment issued by the Government.

Criteria for UMS students:

- registered at PDPT by the time of proposal submission.

How to apply

- Application has to be submitted electronically using our designated platform.
- (need to prepare the submission platform)

Selection criteria

The application will be reviewed by the reviewer team assigned based on their expertise. The key selection criteria are:

- The applicants meet all the research requirements outlined in the guideline of this grant.
- Quality of the study design and work plan.
- Strength of the research group.
- The proposed project has a high impact on the related research area, education, and practice/ industry, as well as the community.
- Management arrangement (distribution of workload, equality, and equity).
- Strength of community engagement and involvement.
- Equity of partnerships.
- Approach to capacity and leadership building.

E. Submission Procedure

The proposal for Competitive Research is carried out by completing the identity of the proposer and uploading the proposal via ISRECOD on the https://isrecod.ums.ac.id/ page. The steps that must be carried out are as follows

1. Login at **ISRECOD**, with your Uni-ID username and password.
2. Select Research and click Active Batch Research, then click Submit a New Proposal.
3. Select the scheme to be proposed, and click International Partnership Research (RKI).
4. The International Partnership Research (RKI) proposal Requirements screen appears.
5. Make sure all the requirements listed can be met and put a checkmark in the box provided.
6. Enter all fields or options in the form provided.
7. Ask members to click on approval as a member by logging into ISRECOD with Uni-ID.
8. Download the confirmation sheet on the ISRECOD page.
9. Completing the endorsement sheet that has been ratified from LRI can be combined and uploaded with the complete proposal.
10. Click Submit Proposal and attach a soft file proposal (document file (doc) or PDF) to the proposal document icon*. So the Competitive Research grant proposal has been registered as a proposer in the current batch/period.
11. If you pass the evaluation desk, the proposer will be invited to make a presentation for the presentation and discussion of the International Partnership Research (RKI). whose time will be determined by LRI UMS.

F. Proposal format and writing systematic

Writing the Competitive Research proposal using TIMES NEW ROMAN 12 and 1.5 spacing. For Abstract using spaces 1. The cover page display and approval sheet can be downloaded in the **Template**.

ATTACHMENT

A. Additional Explanation

I. Cost Allocation Considerations

Briefly explain the purpose and reasons for the need for the proposed research budget. Create a breakdown table of complete budget items with unit prices. Details of the budget should be separated for each year, according to the methods and activities of the year concerned.

The total budget per year is a maximum of IDR 100,000,000.00 specified for each cost component:

(1) The research team's honorarium is a maximum of 30% of the total contract.

(2) Budget for equipment components: name of tool components, specifications, and their uses in research.

(3) The budget for the purchase of equipment that is an investment in nature is not permitted.

(4) Budget for consumables (research materials): the name of the material and its use in research; sorted into office stationery, chemicals, and others (specify).

(5) Travel budget: where and for what purposes (must be specific).

(6) Other expenses: administration, maintenance, damage repair, library research, scientific publications, IPR, etc.

Research funding can be multi-sourced with clear research targets for each funding source. Research proposals that meet these criteria will get a plus. (Information needs to be submitted on the Research Identity sheet).

II. Support for Research Implementation

Mention research funding support for key researchers, both from within and outside the country, including ongoing, currently under consideration, and newly proposed funds. If not, write firmly 'no'. If there is funding support, write down the name of the donor institution, approval number, research title, and the amount of funding, both annual funds and total research funds.

If there are publications, replacements, or additional research proposed, justify this, both related to scientific and budgetary issues.

(1) Ongoing active support.

(2) Support is currently under consideration.

(3) Proposals that are being planned or are in the preparation stage.

III. Equipment & Facility

Explain the facilities to be used, including capacity, carrying capacity/capacity, and what percentage can support the proposed activity. If necessary, also explain the arrangement with other relevant institutions.

(1) Laboratory.

(2) Main equipment: include a list of the main important tools that are already available to support the proposed research activity, where are they located, what are their uses, and what are their capabilities.

(3) Additional information: additional information about the environment in which the activity will be carried out. Write down supporting facilities including workshops and others that can be used during research activities.

IV. Researcher Biodata

Provide complete biodata of all researchers who are closely related to the proposed research. Each biodata must be signed and given a date of signing.

(1) The researcher's identity and complete address.
(2) Bachelor's education and above (name of college and location, degree, year of graduation, field of study).
(3) Professional experience as well as current position or position which includes the name of the institution, position, and period of work arranged in chronological order.
(4) Research experience, stating: the name of the researcher, title/topic, sponsor/funder, and year the research was carried out.
(5) List of publications relevant to the proposed research by mentioning the name(s) of the author, article title, periodical name, volume, and page number, accreditation status (if any), and article URL address.

V. Partner Statement

EVALUATION OF RESEARCH PROPOSAL

1) INTERNATIONAL PARTNERSHIP RESEARCH (RKI) DESK REVIEW ASSESSMENT FORM

I. Research Identity

1. Faculty/Major: …… .....

2. Research Title : ....

3. Chief Researcher : ....

4. Research Team Members : ..... people

5. Research Time : ..... years

6. Recommendation Fee (Rp)

II. Assessment Criteria

Criteria	Percentage (%)	Score	Quality
1. Research roadmap and distribution of research topics	25		
2. Up-to-date topics, relevance of scientific competence	15		
3. Relevance of research methods, analyzes, and results	20		
4. Involvement of lecturers and students	25		
5. Product & output targets	15		
TOTAL	**100**		

Information:

- Each criterion is given a score: 1, 2, 3, 5, 6, 7 (1 = Poor; 2 = Very poor; 3 = Less; 5 = Enough; 6 = Good; 7 = Very good);

• Passing grade accepted 500 without a score of 1.

- Recommendation: Accepted/Rejected

- Reason for Rejection:

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- Improvement Suggestions:

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Surakarta, _____, 20__

Reviewer,

2) PROPOSAL EXPLANATION EVALUATION FORM INTERNATIONAL PARTNERSHIP RESEARCH (RKI)

1. Faculty/Prodi : …… .....

2. Research Title : ....

3. Chief Researcher : ....

4. Research Team Members : ..... people

5. Research Time : ..... years

6. Cost Recommendation (Rp) :

Criteria	Percentage (%)	Score	Quality
1. Ability to explain research proposal	25		
2. Clarity of the background of the problem and the method used	25		

3. Clarity of implementation of research proposal	25		
4. Clarity of achieving external targets	25		
TOTAL	**100**		

- Each criterion is given a score: 1, 2, 3, 5, 6, 7 (1 = Poor; 2 = Very poor; 3 = Poor; 5 = Fair; 6 = Good; 7 = Very good);

• Passing grade = 500 without score 1

- Recommendation: Accepted/Rejected

- Improvement Suggestions:

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Surakarta, , 2022

reviewers,

3) PROGRESS REPORT ASSESSMENT FORM INTERNATIONAL PARTNERSHIP RESEARCH (RKI)

Criteria	Percentage (%)	Score	Quality
1. Conformity with the research proposal	20		
2. Achievement of targets based on indicators that have been formulated	25		
3. Outcome of research	25		
4. Potential and obstacles encountered	10		
5. Involvement of research members and students	20		
TOTAL	**100**		

Information:

- Each criterion is given a score: 1, 2, 3, 5, 6, 7 (1 = Poor; 2 = Very poor; 3 = Less; 5 = Enough; 6 = Good; 7 = Very good);

- Passing grade = 500 without a score of 1.

- Recommendation: Continued/Improved according to the proposal/Discontinued

- Reason for Termination:

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- Improvement Suggestions:

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Surakarta, …….. 20….

reviewers,

4) FINAL REPORT ASSESSMENT FORM INTERNATIONAL PARTNERSHIP RESEARCH (RKI)

Criteria	Percentage (%)	Score	Quality
1. Suitability of research implementation and proposal	20		
2. Achievement of research results and benefits/ contributions to science and technology and society	30		
3. Research output evidence; thesis/dissertation, TBI publications, seminars, HKI, etc.	20		
4. Involvement of research members and students	10		
5. Future Plan	20		
TOTAL	**100**		

Information:
- Each criterion is given a score: 1, 2, 3, 5, 6, 7 (1 = Poor; 2 = Very poor; 3 = Less; 5 = Enough; 6 = Good; 7 = Very good);

- Passing grade = 500 without a score of 1.

- Recommendation: Continue/ /Stop

- Reason for Termination:
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- Improvement Suggestions:

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Surakarta, ……., 20…

Reviewers,

References

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